Figure 9-2 – Pictures of the methodology for density estimation used for weathered rock

9.5 Recovery

Sample recovery in the Resouro Aircore and diamond drilling program were negatively affected by clay and wet materials. The wet materials required additional recovery time to collect the full samples to ensure sampling accuracy. This process did impact drilling productivity with recovery calculated on each 1m interval. Recovery control of the perforated material was carried out by comparing the weight of the sample with the theoretical weight calculated from bibliographic density values. Notably the database received by GE21 for historic drilling does not contain borehole recovery data.

10 SAMPLE PREPARATION, ANALYSIS AND SECURITY

All drilled materials were captured, bagged, and labelled in 1m intervals for sample preparation in the Resouro workshop. Samples in the Resouro workshop were weighed, dried, manually crushed, split into 2kg samples, re-weighed with geological parameters, such as lithology, oxidation, colour, and presence of fragments, recorded. Samples where then sent for sampling to the SGS Geosol laboratory in Vespasiano, Brazil. SGS Geosol are ISO9001, 14001, 17025 accredited laboratories.

Upon receipt, SGS undertook sample preparation for laboratory analysis, including weighing on receipt, drying, two crushing stages, splitting and pulverization to reach a final aliquot of 250g at 150# granulometry. Chemical analysis was then undertaken using the ICP OES/MS analytical method, which consists of the determination of 48 elements by fusion with lithium metaborate.

Based on information from Resouro, the batch of samples from the historical Aircore survey campaign was sent to the laboratory with blank, standard, and duplicate control samples, totalling 15% of the samples analysed.

The chemical analyses of the control samples were not included in the database received by GE21 and, therefore, were not evaluated. The QAQC program was implemented from the second batch (57% of the samples analysed) and consists of 2 blanks, 2 field duplicates and 3 standards every 50 samples, totalling 14% of the samples. The standards used were low and high grade and were manufactured by Intertek from kamafugites from the Patos Formation, with a matrix very similar to the conglomerate from the Capacete Formation. RSM also planned to carry out coarse and pulp duplicates, in addition to secondary analytical laboratory check assay, with the aim to reach a total of 20% control samples.

It is the Author's opinion that the sample preparation, security, and analytical procedures are adequate for the purpose being served.

11 DATA VERIFICATION

Data verification activities carried out by GE21 included a site visit by Geologist Ednie Fernandes on the 5th and 6th of October 2023, accompanied by the Resouro team. This site visit included a discussion of previous reports that described historical work and Resouro exploration on the property. Some information obtained from the various technical reports were verified and confirmed on the site visit, except for historical collar locations.

During the field visit it was possible to see the cores from diamond drillhole PMC-FD-0074 and samples from the auger drilling in the core shed located in the city of Tiros (Figure 11-3).

Four auger collar locations were checked in the field (Figure 11-4). The landmarks are visible but do not contain identification plates with hole information (Figure 11-5 to Figure 11-9). It is typical that landmarks associated with drilling identification methods are fragile and can be damaged and lost over time due to the passage of vehicles, animals, or agricultural machinery. The location of holes in pastures and roads makes it difficult to place more permanent landmarks, however GPS was used to verify these markings with records. The original historical diamond and Aircore drill collars were not observed in the field.

It was possible to observe the operation of an Aircore drilling in the new campaign. This campaign had not yet been inserted into the received database at the time of writing this ITAR due to pending laboratory samples.

It is the Author's opinion the process observed was adequate and typical for the purposes of this technical report.

Figure 11-1 – Drill core storage shed

Figure 11-2 – Diamond drill hole PMC-FD-0074

Legend: a) and b) Diamond drill hole PMC-FD-0074 core boxes; c) SOX zone on the left and MOX zone on the right; d) SOX zone detail; e) MOX zone detail.

Figure 11-3 – Auger drill holes

Legend: a) arrangement of samples in the drilling shed separated by hole; b) sample ID on the outside of the plastic bag; c) sample ID on the inside of the plastic bag.

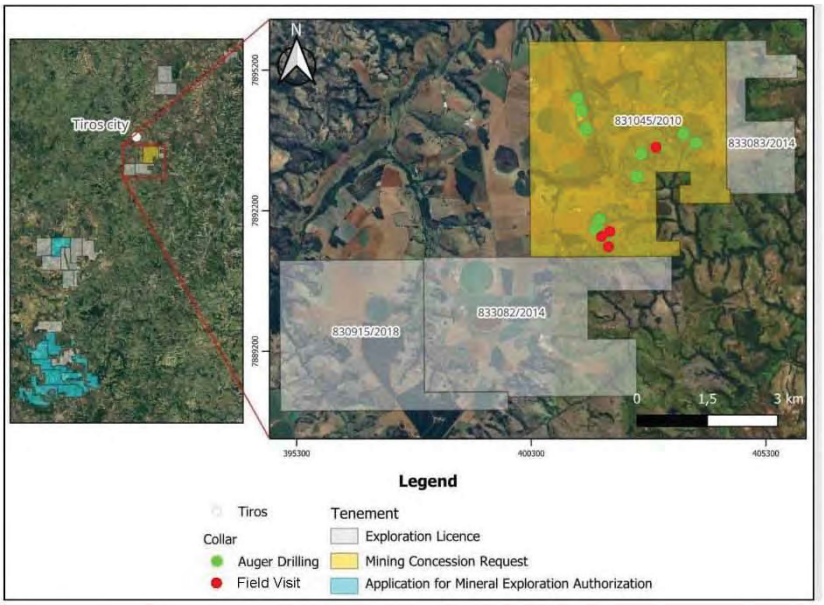

Figure 11-4 – Field visit points

Figure 11-5 – Capacete Formation

Legend: a) outcrop next to the Tiros city; b) and c) MOX zone; d) and e) SOX Zone.

Figure 11-6 – Auger drill hole FT-04

Figure 11-7 – Auger drill hole FT-09

Figure 11-8 – Auger drill hole FT-10

Figure 11-9 – Auger drill hole FT-11

12 MINERAL PROCESSING AND METALLURGICAL TESTING

In late September 2023, RSM submitted to Prosper (previously Nomos laboratory), a metallurgical test-work laboratory based in the state of Rio de Janeiro, Brazil, a 207kg composite sample made up from 242 samples from 19 historic drill holes including multiple samples from a variety of different zones across the Tiros Project. The scope of work related to the determination of preliminary recovery results and the production of an anatase concentrate and a REE concentrate.

The samples were screened from material passing 600 mesh, leached at 80 degrees Celsius using a 40ml of 0.5 mole Ammonium Sulphate (NH4)2SO4 with pH starting at 3.5 and finishing at 4.5, with an average pH of 4.

Results of the work are summarised in below in Figure 12-1:

(NH4)2SO4 0.5M 40ml	Ce	DY	Er	Eu	Gd	Ho	La	Lu	Nd	Pr	Sm	Tb	Tm	Y	Yb
Head Grade ppm	1685.5	22.8	7.6	19.3	48.0	3.3	703.2	0.5	548.1	164.9	80.0	5.3	0.9	73.5	4.7
Leached Grade ppm	289.3	13.8	5.3	9.0	23.8	2.1	156.2	0.3	226.7	53.0	32.2	3.3	0.4	51.3	2.9
Leached Recovery	17%	60%	69%	46%	50%	62%	22%	63%	41%	32%	40%	62%	43%	70%	61%

Figure 12-1 – Preliminary REE and TiO2 Concentrate Metallurgy Work

Following this successful work samples, additional samples were sent to the laboratories ANSTO, in Australia, and Anzaplan in Germany with the scope of work focused on the REE concentrate production. No material results of this work have been received at the time of writing this ITAR.

It is not yet known if the results are representative of the Tiros Project which will be determined following further exploration.

13 MINERAL RESOURCE ESTIMATES

There are no known resource estimates on the Tiros Project area that a compliant with JORC.

14 ADJACENT PROPERTIES

No known historical estimates of mineral resources on adjacent property are known to RSM at present.

15 OTHER RELEVENT DATA AND INFORMATION

There is no further known relevant data and information.

16 INTERPRETATION AND CONCLUSIONS

The Tiros Project is an early-stage mineral exploration project with historical drilling and preliminary metallurgy work. Since its first discovery in 2013, geological knowledge of the area has progressed significantly with the present drilling program indicating a substantial REE and Titanium project of large-scale potential with latest results reporting a number of key intersections including:

- ACTIR-27 Aircore from 39m to 43m 22.84% Tio2 and 8,676ppm TREO containing 1,984ppm NdPr.
- ACTIR-28 Aircore from 32m to 36m 24.60% Tio2 and 7,958ppm TREO containing 1,829ppm NdPr.
- ACTIR-31 Aircore from 35m to 45m 21.76% Tio2 and 7,980ppm TREO containing 1,595ppm NdPr.
- ACTIR-32 Aircore from 51 to 54m 23.33% Tio2 and 10,456ppm TREO containing 2,316ppm NdPr.
- FDTIR-01 Diamond from 15.4m to 21.4m 23.03% Tio2 and 10,028ppm TREO containing 2,413ppm NdPr.
- FDTIR-02 diamond from 35m to 45m 17.09% Tio2 and 7,012ppm TREO containing 1,763ppm NdPr.
- FDTIR-03 diamond from 3m to 10m 22.86% Tio2 and 9,310ppm TREO containing 2,083ppm NdPr.

The Tiros Project areas have completed a reasonable level of drill hole data density and reliability. The model indicates a reasonable level of geological understanding is known of the local and regional geology satisfying the Author that the deposit should achieve a JORC compliant report with increased drilling density.

The Author was satisfied that the drilling and assay process meets international practices although notes that the QA/QC procedures were not presented.

The preliminary metallurgical test work at Prosper laboratories indicate when compared to industry peers that the asset recoverability is possible and there is a path to possible reasonable economic extraction. It is noted no preliminary market suitability of the products has been assessed and will be required to achieve a reasonable economic extraction. It should be noted that the preliminary metallurgy work is based on early drilling and a more representative sample of the areas should be assessed if the Tiros Project was advanced by the owners.

The Author considers that RSM is developing a strong understanding of the Tiros Project, the region and its community and are building a robust and experienced team to assess the optimal exploration strategy to achieve successful outcomes. The Author considers that the Tiros Project is believed to have strong potential for a successful outcome due to:

- High-grade titanium and REE in comparison to other known assets.
- Positive recovery preliminary work.
- Strong rare earth and titanium forecast markets.

The Author is of the opinion that mineral exploration program and planned works in development follows, in part, the mineral industry best practices and the work undertaken to date is appropriate for the early stages of exploration. Notably the drilling follows appropriate procedures, but GE21 did not have access to these procedures and was unable to monitor the work being carried out in the field. There is a conventional QA/QC program in place, and this was not evaluated by GE21.

17 RECOMMENDATIONS AND USE OF FUNDS

Based on the evaluation of the Tiros Project as outlined in this ITAR, the Author recommends additional work to (a) define a mineral resource estimate in accordance with JORC standard, and (b) assess the metallurgical characteristics of the mineralization.

It is recommended that Resouro undertake the following:

Exploration:

a. Post receipt of pending drill hole assays undertake an assessment of the data collected and confirm boundaries, average grades and thicknesses of mineralization.
b. Conduct further exploration "scout holes" and infill drilling to define a mineral resource estimate for the Tiros Project in accordance with JORC Code, including demonstrating preliminary and reasonable prospects for economic extraction, with sufficient flexibility to support the evaluation of both bulk-tonnage and mining methods.
c. Perform further density tests on the lithologies of interest.

Metallurgical and Processing:

a. Undertake mineralogical and preliminary metallurgical studies to demonstrate the potential recoveries and subsequent economic extraction of payable metals, such as in support of the production of concentrates for export or in support of secondary processing. Also carry out the characterization of the presence of uranium and thorium in REE concentrates.

Other Project Related Studies:

a. Carry out a topographic survey of the Tiros Project area.
b. Determine if the asset meets investment hurdles to undertake further studies.

Table 17-1 provides a basic breakdown of the proposed exploration and associated expenditure having regard to the recommendations which are forecast to require approximately 12 months to complete following the proposed capital raising under the prospectus issued by Resouro. The works program in Table 17-1 is associated with expenditure at the Tiros Project to be undertaken by Resouro on the area of exploration permits 831.045/2010, 830.450/2017 and 830.915/2018, with a focus predominantly on exploration permit 831.045/2010. Additional work on the other exploration permits will be considered in the future.

Table 17-1 – A breakdown of the forecast Works Program expenditure forecast to occur over approximately 12 months

Tiros Activity	A$
Exploration and Development Activities	
-Exploration	2,546,994
-Metallurgy	937,058
-Community	193,911
-Environmental	186,156
-Mining Technical Studies	276,511
-Logistics and Infrastructure	67,800
-Salaries, Wages and Oncosts	749,202
-Overheads	14,773
Total Indicative Allocation of Funds	**4,972,405**

The Author and GE21 consider the proposed budget is consistent with the exploration potential of the Tiros Project and is adequate to cover the costs of the proposed program. The budgeted expenditure is also sufficient to meet the minimum statutory expenditure on the exploration permits. The Author and GE21 consider the type of exploration and weighting towards the Tiros Project as appropriate.

At least half of the liquid assets held, or funds proposed to be raised by Resouro, are understood to be committed to the exploration, development and administration of its mineral properties, satisfying the requirements of ASX Listing Rule 1.3.2(b). The Author and GE21 understand that Resouro has sufficient working capital to carry out its stated objectives, satisfying the requirements of ASX Listing Rule 1.3.3(b).

Resouro has prepared stated exploration and evaluation programs, specific to the potential of its mineral projects, which are consistent with the budget allocations, and warranted by the exploration potential of the Tiros Project. The Author and GE21 consider the relevant areas have sufficient technical merit to justify the proposed programs and associated expenditure, satisfying the requirements of ASX Listing Rule 1.3.3(a).

18 SIGN OFF

The "Effective Date" for the current Technical Report of February 05th, 2024.

The Author and Competent Person for this ITAR is Ednie Rafael Fernandes. Mr. Fernandes visited the Tiros Project on October 5th to 6th, 2023, and was responsible for developing this ITAR. Mr. Fernandes is a geologist, member of the Australian Institute of Geoscientists and has over 12 years of experience in working with mining projects.

GE21 was commissioned by Resouro to prepare this ITAR for the Tiros Project in Minas Gerais, Brazil, in accordance with the directives of JORC and GE21 is satisfied it has met the needs of this scope.

19 REFERENCES

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20 DATE AND SIGNATURE PAGE

Report Prepared for	**Resouro Strategic Metals Inc.**
Report issued by	**Ednie Rafael M. de C. Fernandes**
Report Information	This ITAR, titled "Independent Technical Report for the Tiros Ti+REE Project, Minas Gerais, Brazil" ("Technical Report"), having an effective date of February 05th, 2024, was prepared on behalf of Resouro Strategic Metals Inc. by Ednie Rafael Fernandes, and signed by him, Dated at Belo Horizonte, Brazil, this 29th April 2024
Author and Reviewer Signatures	Ednie Rafael M. de C. Fernandes, MAIG Ednie Rafael M. C. Fernandes MAIG 7974

APPENDIX A – CERTIFICATE OF COMPETENT PERSON

I, Ednie Rafael, MAIG, (#7974), as an author of the technical report titled "Independent Technical Report for the Tiros Ti+REE Project, Minas Gerais, Brazil", dated April 29th, 2024, with an effective date of February 5th, 2024, prepared for Resouro Strategic Metals Inc, do hereby certify that:

1. I am a Geologist and Associate Consultant for GE21 Consultoria Mineral Ltda., which is located on Avenida Afonso Pena, 3130, 12th floor, Savassi, Belo Horizonte, MG, Brazil - CEP 30130-910.
2. I am a graduate of the Federal University of Bahia, located in Salvador, Brazil, and hold a Bachelor of Science Degree in Geology.
3. I am a Professional enrolled with the Australasian Institute of Geoscientists ("AIG") - ("MAIG").
4. 4) I am a professional geologist, with more than 12 years' relevant experience in exploration geology and have sufficient experience that is relevant to the styles of mineralization and types of deposit under consideration to be considered as a CP.
5. I am a "Competent person" as that term is defined in JORC (the "Instrument").
6. I am independent of Resouro Strategic Metals Inc (issuer) and Vendor (RBM (RBM Consultoria Mineral Ltda.) and there is no circumstance that could in the opinion of a reasonable person aware of all relevant facts, interfere with the Competent person's judgment.
7. I have no prior involvement with the property that is the subject of this ITAR. The relationship with the Issuer was solely for professional works in exchange for fees based on rates set by commercial agreement. Payment of these fees is in no way dependent on the results of the Technical Report.
8. I am responsible for all sections of this Technical Report.
9. I did personally inspect the properties between October 5th and 6th, 2023.
10. As of the effective date of the Technical Report, to the best of my knowledge, information, and belief, the sections of the Technical Report that I have authored and am responsible for contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.
11. I have no personal knowledge, as of the date of this certificate, of any material fact or material change which is not reflected in this Technical Report.
12. I have read JORC, and this technical report has been prepared in compliance with this Instrument.

Belo Horizonte, Brazil, April 29th, 2024.

Ednie Rafael M. C. Fernandes
MAIG 7974

Ednie Rafael Moreira de Carvalho Fernandes, MAIG

JORC Code, 2012 Edition – Table 1 Report

TIROS REE+Ti PROJECT – EXPLORATION UPDATE

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling. • Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	• Samples were taken from diamond drillhole, aircore drillhole and auger drill holes, all drilled material was sampled, nothing being discarded. The sampling intervals were chosen based on geological description during drill core logging. The samples were produced according to industry standard procedures. • Measures to ensure sample representativity include setting up of a specific sampling procedure and having a dedicated-on site full time survey team. A QAQC program was implemented in the auger drilling campaign and in the resampling of aircore holes. Best practices as drillcore recovery and depth marks audits were performed during drilling campaigns and sampling. The diamond drilling recovery conference consisted of verifying advance and recoveries recorded in the core boxes and drilling bulletins. For auger and aircore drilling verification was undertaken by weighing of chip bags. GE21 did not receive QAQC and recovery data from auger campaign.
	• Aspects of the determination of mineralization that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralization types (e.g. submarine nodules) may warrant disclosure of detailed information.	• Industry standard work has been done. Core samples with an average length of 1.16m were split in half for the diamond drill hole before being collected to allow half of the material to be sent for chemical analysis and the remaining half were stored in the core shed. The historic aircore samples are 1m long, all material is collected and were initially analyzed only with portable XRF by Iluka-Vicenza Joint Venture; Resouro sent 1kg average weight samples to the laboratory after quartering with a Jones-type quarterer. Auger samples are 1m long and all material is collected; the samples from the first batch were sent with 1kg and those from the second batch onwards with 2kg, always after quartering with a Jones-type quarterer. The sampling was planned by the geologists and care was taken to avoid any contamination between neighbouring samples.

Criteria	JORC Code explanation	Commentary
Drilling techniques	• Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).	• 3 types of drilling were carried out on the project: diamond drilling, aircore drilling and auger drilling. Vincenza completed a single diamond drill hole in HQ size, vertical and reached 82.45m. Aircore drill holes were undertaken by Iluka-Vicenza JV in 75mm diameter, totalling 1,225m drilling in 20 holes with depth of the holes up to 60m. Auger drillholes were undertaken by Resouro in 100mm diameter, totalling 257m in 25 auger holes with depth of the holes up ~15m. Aircore drilling undertaken by Resouro at the time of writing the report was 1,562 m over 31 Aircore drill holes of ~100mm diameter, with the depth of the holes up to ~85m. Diamond drilling undertaken by Resouro at the time of writing the report was 1,634 m over 26 diamond drill holes of ~100mm diameter, with the depth of the holes up to ~93m. • All holes were vertical and with depths below 100m, therefore no trajectory measures were taken in the holes.
Drill sample recovery	• Method of recording and assessing core and chip sample recoveries and results assessed.	• The diamond drilling recovery conference consisted of verifying runs and recoveries recorded in the core boxes and drilling bulletins with verification undertaken by measuring with tape measure the core present in the boxes. The recovery control of the drilled material is carried out for auger and aircore holes by comparing its weight with the theoretical weight calculated from bibliographic density values.
	• Measures taken to maximize sample recovery and ensure representative nature of the samples.	• The database received by GE21 does not contain borehole recovery data.
	• Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	• Not applied because the core recovery data is not registered in the drillhole database.
Logging	• Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.	• Geotechnical descriptions were not carried out. • The author considers that the level of detail of geological description for the diamond drillhole and aircore drillhole is sufficient for the reporting of Exploration Results. The geological description of the auger and Aircore holes is still pending.
	• Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	• Lithological logging is qualitative in nature. Geological description consisted of defining weathering levels, mineralogical, lithological, in all holes with detail of one meter. GE21 did not have access to photographs of the holes. It is only known that systematic photographs of the auger samples are being taken.
	• The total length and percentage of the relevant intersections logged.	• All diamond and Aircore drillholes were fully logged. Auger holes were not logged.

Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	• If core, whether cut or sawn and whether quarter, half or all core taken. • If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry. • For all sample types, the nature, quality and appropriateness of the sample preparation technique. • Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. • Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field. ▪ duplicate/second-half sampling. • Whether sample sizes are appropriate to the grain size of the material being sampled.	• Vicenza conducted the diamond drilling and collected core samples which were split in half before being collected to allow half of the material to be sent for chemical analysis and the remaining half were filed in the core shed. The sampling was planned by the geologists and care was taken to avoid any contamination between neighbouring samples. • Auger and Aircore samples were also collected by following sampling plans specified by the geologists. The samples were prepared by splitting using a Jones splitter. Auger samples are 1m long and all material is collected; The samples from the first batch were sent with 1kg and those from the second batch onwards with 2kg, always after quartering with a Jones-type quarterer. • The physical preparation of the drilling samples was performed at the SGS Laboratory of Vespasiano – MG. For Aircore, diamond and auger samples, physical preparation involves crushing ~75% of the material to 3mm followed by pulverizing 95% of the material to <150#, generating a pulp weighing 250g. • The first batch with auger samples was shipped without control samples. In the second batch, 2 field duplicates and 2 blanks were inserted for every 50 samples to control the quality of the physical preparation. In the aircore hole resampling and Resouro exploration program, 10 field duplicates and 10 blanks were inserted into a batch with 224 original samples to control the quality of the physical preparation. • Sample sizes are considered appropriate for the mineralization type.
Quality of assay data and laboratory tests	• The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	• The applied assay method is considered to be the standard for the determination of TiO2 and REE. Chemical analyses were conducted in the laboratory of SGS Geosol, Vespasiano-MG. Sample pulps were assayed by ICP-MS, ICP-OES and X-ray Fluorescence methods, the latter being used only in diamond drilling samples. The assay technique is considered to be a total rock geochemical analysis method and a standard technique within the industry.
	• For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	• Handheld XRF instrument model Niton Goldd Xlt3 were used in the aircore samples by Iluka-Vicenza JV.
	• Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and	• Quality control tools (standard samples, blanks and duplicates) were applied in the second batch auger sample and in the aircore programs in chemical analysis performed on SGS Geosol. The monitoring of control samples, as well as their results, was not presented to GE21.

Criteria	JORC Code explanation	Commentary
	precision have been established.	
Verification of sampling and assaying	• The verification of significant intersections by either independent or alternative company personnel.	• GE21 does not judge the values presented in the report for not having access to QAQC data sheet.
	• The use of twinned holes.	• A the time of writing this report a single twin hole was being drilled by RSM however results of the twin hole had not yet been received and analysed.
	• Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	• Data collection and verification and storage protocols are not fully documented.
	• Discuss any adjustment to assay data.	• There are no adjustments on assays.
Location of data points	• Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	• All drillhole collars were topographically surveyed by handheld GPS and the auger hole landmarks are visible in the field, but the hole is not identified. The diamond hole and aircore hole landmarks are not visible in the field.
	• Specification of the grid system used.	• WGS 84 Datum for coordinate system.
	• Quality and adequacy of topographic control.	• In the field it was observed that the auger hole landmarks are fragile and can be destroyed and lost due to the vehicles, animals, and agricultural machinery. There's a risk of loss of information related to the e topographic survey of the hole collars not being accurate.
Data spacing and distribution	• Data spacing for reporting of Exploration Results.	• The auger drilling grid is not regular and prioritizes locations without the presence of cover, where the Capacete Formation outcrops. • Diamond drillhole samples were produced at average length of 1.16 m, and 1,0m for auger and aircore drillholes.
	• Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.	• The drilling is in the exploratory phase and the grid is irregular in general terms.
	• Whether sample compositing has been	• Not Applied

Criteria	JORC Code explanation	Commentary
	applied.	
Orientation of data in relation to geological structure	• Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	• The geological layers are approximately horizontal and the holes are vertical. Sampling was performed almost perpendicular to the layers, which is the best condition.
	• If the relationship between the drilling orientation and the orientation of key mineralized structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	• No bias was introduced when using vertical drillholes.
Sample security	• The measures taken to ensure sample security.	• Samples from the auger and Aircore campaign receive in the field an identification on the sample bag containing the hole number and depth. Later in the core storage facility, each sample receives a sample number identification, both on the outside of the bag and internally with a label. The aliquots sent to the laboratory are also properly identified, internally and externally, with the sample number. • The sample bags were transported by the Resouro's personnel from the drill site to the core storage facility in Tiros.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• There has been no specific audit or reviews on sampling techniques, however Resouro did appoint a number senior consulting geologists to review the sampling and drilling techniques, however no record of this was presented to GE21.

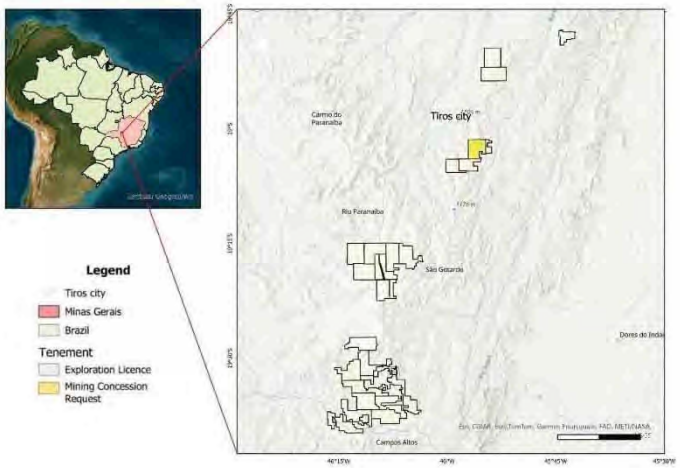
Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.	

Exploration Permit	Area (ha)	Status	Municipalities	Holder	Assignee
831.045/2010	1999.78	Exploration Permit	Tiros	BRAZIL COPPER MINERAÇÃO LTDA	N/A
833.082/2014	1,998.62	Exploration Permit	Tiros	BRAZIL COPPER MINERAÇÃO LTDA	N/A
833.083/2014	1,984.17	Exploration Permit	Tiros	BRAZIL COPPER MINERAÇÃO LTDA	N/A
830.450/2017	1,999.96	Exploration Permit	Tiros	BRAZIL COPPER MINERAÇÃO LTDA	N/A
830.915/2018	1,978.98	Exploration Permit	Tiros	BRAZIL COPPER MINERAÇÃO LTDA	N/A
831.390/2020	1,988.15	Exploration Permit Application	São Gotardo	BRAZIL COPPER MINERAÇÃO LTDA	N/A
831.720/2020	1,999.3	Exploration Permit	Campos Altos	BRAZIL COPPER MINERAÇÃO LTDA	N/A
830.026/2021	1,735.69	Exploration Permit	Campos Altos, Santa Rosa da Serra, São Gotardo	RODRIGO DE BRITO MELLO	BRAZIL COPPER MINERAÇÃO LTDA
830.027/2021	1,280.47	Exploration Permit	Campos Altos, Santa Rosa da Serra	RBM CONSULTORIA MINERAL EIRELI	BRAZIL COPPER MINERAÇÃO LTDA
831.237/2021	365.86	Exploration Permit	Tiros	CANOPUS GEOLOGIA E PROJETOS LTDA	BRAZIL COPPER MINERAÇÃO LTDA
831.314/2021	871.55	Exploration Permit	Tiros	CANOPUS GEOLOGIA E PROJETOS LTDA	BRAZIL COPPER MINERAÇÃO LTDA

Criteria	JORC Code explanation	Commentary					
		832.023/2023	1,055.16	Exploration Permit	Rio Paranaiba	RODRIGO DE BRITO MELLO	BRAZIL COPPER MINERAÇÃO LTDA
		832.025/2023	1,995.44	Exploration Permit	Rio Paranaiba, São Gotardo	RBM CONSULTORIA MINERAL EIRELI	BRAZIL COPPER MINERAÇÃO LTDA
		832.026/2023	1,981.41	Exploration Permit	Rio Paranaiba, São Gotardo	BRAZIL COPPER MINERAÇÃO LTDA	N/A
		832.027/2023	1,998.88	Exploration Permit	Rio Paranaiba	BRAZIL COPPER MINERAÇÃO LTDA	N/A
		832.029/2023	1,986.59	Exploration Permit	Rio Paranaiba, São Gotardo	BRAZIL COPPER MINERAÇÃO LTDA	N/A
		832.223/2023	1,855.16	Exploration Permit	Rio Paranaiba	BRAZIL COPPER MINERAÇÃO LTDA	N/A
		832.226/2023	1,972.27	Exploration Permit	Campos Altos, São Gotardo	BRAZIL COPPER MINERAÇÃO LTDA	N/A
		832.601/2023	1,999.78	Exploration Permit	Campos Altos	RODRIGO DE BRITO MELLO	BRAZIL COPPER MINERAÇÃO LTDA
		832.604/2023	1,998.62	Exploration Permit	Campos Altos	BRAZIL COPPER MINERAÇÃO LTDA	N/A
		832.620/2023	1984.17	Exploration Permit	Campos Altos	BRAZIL COPPER MINERAÇÃO LTDA	N/A
		832.621/2023	1,999.96	Exploration Permit	Campos Altos, Santa Rosa da Serra, São Gotardo	BRAZIL COPPER MINERAÇÃO LTDA	N/A
		832.624/2023	1,978.98	Exploration Permit	Campos Altos	BRAZIL COPPER MINERAÇÃO LTDA	N/A
		832.625/2023	1988.15	Exploration Permit	Campos Altos, Ibiá	BRAZIL COPPER MINERAÇÃO LTDA	N/A
		832.627/2023	1999.33	Exploration Permit	Campos Altos	BRAZIL COPPER MINERAÇÃO LTDA	N/A

Criteria	JORC Code explanation	Commentary
		 Concession Area Map
	• The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.	• ANM' GIS system (SIGMINE (anm.gov.br) was checked to verify the status of tenement areas at the time of report and the information shows the areas as regular for exploration works by Resouro. No issue related to tenements rights in this check was detected.

Criteria	JORC Code explanation	Commentary
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	• Main exploration works was carried on by Vicenza and Iluka-Vicenza JV. Principal source of information was the Final Exploration Report (FER) to DNPM/ANM (Brazilian National Department of Mineral Production/ Mining National Agency) with description and evaluation of results obtained in the exploration work carried out by Vicenza, and internal report titled '6 Monthly Report activities in Capacete Project, MG – Brazil' carried out by Iluka-Vicenza JV.
Geology	• Deposit type, geological setting and style of mineralization.	• Rare earth and titanium mineralization are hosted in sandstones and conglomerates of the Capacete Formation, belonging to the Mata da Corda Group. Titanium is associated with the mineral anatase, originating from the alteration of perovskite. As for rare earths, they are suspected to be associated with ionic clays. The Capacete Formation is the result of the sedimentation of the erosion product of the rocks of the Patos Formation, also belonging to the Mata da Corda Group. The Patos Formation represents a voluminous set of Upper Cretaceous kamafugite pyroclastic flows and deposits, hosted in the Brasília Belt, southwest of the São Francisco Craton.
Drill hole Information	• A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: • easting and northing of the drill hole collar • elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar • dip and azimuth of the hole • down hole length and interception depth. • hole length. • If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	

HoleID	X	Y	Z	AZIMUTH	DIP	Interval FROM	Interval TO	Company
AC-TIR-002	400969	7889678	1071	0	90	36	42	Iluka/Vicenza
AC-TIR-003	399396	7888934	1097	0	90	44	48	Iluka/Vicenza
AC-TIR-004	398588	7889640	1077	0	90	37	51	Iluka/Vicenza
AC-TIR-005	398485	7890519	1071	0	90	36	47	Iluka/Vicenza
AC-TIR-008	401778	7891183	1080	0	90	44	55	Iluka/Vicenza
AC-TIR-009	402338	7891131	1048	0	90	13	28	Iluka/Vicenza
AC-TIR-010	400947	7890168	1066	0	90	26	39	Iluka/Vicenza
AC-TIR-011	401151	7890502	1049	0	90	11	53	Iluka/Vicenza
AC-TIR-012	404670	7892974	1074	0	90	51	60	Iluka/Vicenza
AC-TIR-013	405408	7893153	1033	0	90	29	36	Iluka/Vicenza
AC-TIR-014	404569	7894139	1049	0	90	31	35	Iluka/Vicenza
AC-TIR-016	404645	7895023	1053	0	90	30	51	Iluka/Vicenza
AC-TIR-018	404954	7895577	1048	0	90	22	33	Iluka/Vicenza

Criteria	JORC Code explanation	Commentary

AC-TIR-020	401239	7888629	1044	0	90	13	27	Iluka/Vicenza
FT-01	401470	7893949	1003	0	90	0	6	Resouro
FT-02	401368	7894337	997	0	90	0	11	Resouro
FT-03	401286	7894607	997	0	90	0	6	Resouro
FT-04	402991	7893548	1027	0	90	3	15	Resouro
FT-05	402639	7893409	1019	0	90	2	9	Resouro
FT-07	403541	7893845	944	0	90	0	2	Resouro
FT-09	401959	7891441	1039	0	90	3	11	Resouro
FT-10	401828	7891643	1001	0	90	7	10	Resouro
FT-11	401968	7891730	1033	0	90	0	10.5	Resouro
FT-14	404436	7911032	1040	0	90	12	15	Resouro
FT-15	404013	7911081	1035	0	90	3	16	Resouro
FT-16	403804	7911334	988	0	90	0	13	Resouro
FT-18	405538	7910684	1023	0	90	2	9	Resouro
FT-19	405670	7910407	1021	0	90	0	11	Resouro
FT-20	405796	7910196	1037	0	90	6	7	Resouro
FT-21	404815	7914113	893	0	90	0	2	Resouro
FT-23	404683	7915151	912	0	90	0	11	Resouro
FT-24	404435	7915040	917	0	90	0	15	Resouro
FT-25	406423	7915087	1013	0	90	0	12	Resouro
ACTIR-21	404224	7893656	1050	0	90	0	43	Resouro
ACTIR-22	404273	7893424	1053	0	90	0	58	Resouro
ACTIR-23	404863	7893710	1051	0	90	2	57	Resouro
ACTIR-24	404686	7893661	1064	0	90	0	80	Resouro

Criteria	JORC Code explanation	Commentary								
		ACTIR-25	404596	7893609	1054	0	90	0	59	Resouro
		ACTIR-26	404440	7893490	1054	0	90	0	83	Resouro
		ACTIR-27	404260	7893363	1057	0	90	29	46	Resouro
		ACTIR-28	404372	7893400	1035	0	90	32	80	Resouro
		ACTIR-29	404527	7893553	1055	0	90	45	74	Resouro
		ACTIR-30	404534	7893922	1047	0	90	18	48	Resouro
		ACTIR-31	404050	7893281	1057	0	90	33	59	Resouro
		ACTIR-32	404899	7893225	1038	0	90	51	63	Resouro
		ACTIR-33	404876	7892647	1058	0	90	10	51	Resouro
		ACTIR-34	404677	7894603	1072	0	90	53	67	Resouro
		ACTIR-36	405143	7895114	1019	0	90	6	46	Resouro
		ACTIR-37	396320	7888840	1024	0	90	22	49	Resouro
		ACTIR-38	397552	7890890	1022	0	90	20	57	Resouro
		ACTIR-39	405672	7910407	992	0	90	6	16	Resouro
		ACTIR-40	406571	7914075	1039	0	90	47	51	Resouro
		ACTIR-41	422780	7919369	910	0	90	6	12	Resouro
		ACTIR-42	423471	7921116	959	0	90	17	35	Resouro
		ACTIR-43	407349	7914551	1054	0	90	47	53	Resouro
		ACTIR-46	386029	7868243	1109	0	90	41	53	Resouro
		ACTIR-48	380630	7860388	1125	0	90	24	41	Resouro
		ACTIR-50	381569	7862210	1122	0	90	13	32	Resouro
		FDTIR-01	402326	7891121	1032	0	90	12.4	21.4	Resouro
		FDTIR-02	404643	7895024	1033	0	90	34	58	Resouro
		FDTIR-03	405585	7892798	1019	0	90	3	26	Resouro

Criteria	JORC Code explanation	Commentary								
		FDTIR-04	401235	7888631	1052	0	90	16	26	Resouro
		FDTIR-05	404499	7892925	1051	0	90	19	31.9	Resouro
		FDTIR-06	405286	7893524	1067	0	90	35	49	Resouro
		FDTIR-07	404023	7892769	1032	0	90	12	18.45	Resouro
		FDTIR-08	404389	7895655	1013	0	90	13	79	Resouro
		FDTIR-09	404241	7894354	1055	0	90	37	92.85	Resouro
		FDTIR-10	405722	7893594	1004	0	90	0	6	Resouro
		FDTIR-11	403611	7894297	1016	0	90	35	54.4	Resouro
		FDTIR-12	403171	7894171	1075	0	90	41	63.8	Resouro
		FDTIR-13	402835	7893707	1083	0	90	17	81.15	Resouro
		FDTIR-14	402214	7893320	1011	0	90	20	50.15	Resouro
		FDTIR-15	401701	7891530	1084	0	90	39	101.3	Resouro
		FDTIR-16	400647	7891313	1083	0	90	36	93	Resouro
		FDTIR-17	403000	7894552	1016	0	90	36	91.75	Resouro
		FDTIR-18	402097	7892865	995	0	90	0	66	Resouro
		FDTIR-19	403646	7894678	1019	0	90	9	79	Resouro

Data aggregation methods	• In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.	• The project is in the exploration phase and no exploration results are yet to be published.
	• Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be	• No Aggregation methods applied.

Criteria	JORC Code explanation	Commentary
	stated and some typical examples of such aggregations should be shown in detail. • The assumptions used for any reporting of metal equivalent values should be clearly stated.	• No metal equivalent was reported.
Relationship between mineralization widths and intercept lengths	• These relationships are particularly important in the reporting of Exploration Results.	• Auger holes reach only the most oxidized part of the Capacete Formation (SOX) or, at most, the top of the moderately oxidized part of this formation (MOX). • Information from the aircore survey indicates that the thickness of the Capacete Formation may exceed 60m, with 50m being SOX and 10m being MOX. • In the drilling cores from the diamond hole, a SOX layer of 13m and a MOX layer of approximately 40m were observed.
	• If the geometry of the mineralization with respect to the drill hole angle is known, its nature should be reported. • If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	• All holes were vertical and mineralization zone are horizontal.
Diagrams	• Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	• Further diagrams necessary to describe the Project are included in "Independent Technical Report for the Tiros REE+Ti Project, Minas Gerais, Brazil"- Prepared by GE21.
Balanced reporting	• Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration	

HoleID	X	Y	Z	AZIMUTH	DIP	Interval FROM	Interval TO	Average TREO ppm	Average TiO2%
AC-TIR-002	400968.7	7889678	1071.211	0	90	36	42	1986	10.23
AC-TIR-003	399395.8	7888934	1096.954	0	90	44	48	3082	13.01

Criteria	JORC Code explanation	Commentary
	Results.	

AC-TIR-004	398587.7	7889640	1076.711	0	90	37	51	4125	11.83
AC-TIR-005	398485.3	7890519	1070.696	0	90	36	47	2530	11.71
AC-TIR-008	401777.8	7891183	1079.7	0	90	44	55	3382	15.77
AC-TIR-009	402337.5	7891131	1048.104	0	90	13	28	4873	17
AC-TIR-010	400946.7	7890168	1066.318	0	90	26	39	4599	16.73
AC-TIR-011	401150.6	7890502	1048.662	0	90	11	53	4116	16.47
AC-TIR-012	404669.6	7892974	1074.331	0	90	51	60	5521	17.12
AC-TIR-013	405408.4	7893153	1033.307	0	90	29	36	2865	8.78
AC-TIR-014	404568.9	7894139	1049.344	0	90	31	35	2629	10.06
AC-TIR-016	404644.8	7895023	1052.623	0	90	30	51	3334	11.23
AC-TIR-018	404954.4	7895577	1047.773	0	90	22	33	4933	14.25
AC-TIR-020	401239.3	7888629	1044.091	0	90	13	27	5495	15.19
FT-01	401470.1	7893949	1002.723	0	90	0	6	4189	20.56
FT-02	401368.3	7894337	997.0978	0	90	0	11	5253	15.26
FT-03	401286	7894607	997.0582	0	90	0	6	4058	15.03
FT-04	402991	7893548	1027.226	0	90	3	15	6699	19.41
FT-05	402639.2	7893409	1018.939	0	90	2	9	3455	10.92
FT-07	403540.6	7893845	944.0546	0	90	0	2	3610	10.82
FT-09	401958.9	7891441	1039.084	0	90	3	11	5768	16.03
FT-10	401827.6	7891643	1001.096	0	90	7	10	3143	8.76
FT-11	401967.7	7891730	1033.299	0	90	0	10.5	7181	10.47
FT-14	404435.9	7911032	1040.91	0	90	12	15	662	9.37
FT-15	404013.3	7911081	1034.5	0	90	3	16	1846	9.92
FT-16	403803.7	7911334	988.3385	0	90	0	13	1546	7.2
FT-18	405538.3	7910684	1022.839	0	90	2	9	2508	7.66
FT-19	405670.3	7910407	1021.412	0	90	0	11	4131	8.78

Criteria	JORC Code explanation	Commentary									
		FT-20	405796.2	7910196	1037.287	0	90	6	7	223	6.14
		FT-21	404814.6	7914113	892.66	0	90	0	2	1882	4.65
		FT-23	404683.3	7915151	912.154	0	90	0	11	5155	14.03
		FT-24	404434.8	7915040	916.733	0	90	0	15	3885	13.01
		FT-25	406423.4	7915087	1012.846	0	90	0	12	8150	20.1
		ACTIR-21	404223.1	7893656	1035.208	0	90	29	43	4340	12.13
		ACTIR-22	404275.9	7893424	1017.652	0	90	23	58	4120	10.35
		ACTIR-23	404861.8	7893705	1058.431	0	90	29	57	4585	12.74
		ACTIR-24	404686.3	7893661	1064.445	0	90	34	78	5739	15.44
		ACTIR-25	404596	7893609	1054	90	0	0	59	3027.54	9.05
		ACTIR-26	404440	7893490	1054	90	0	0	83	3210.73	9.96
		ACTIR-27	404280	7893363	1057	90	0	29	46	4214.78	15.06
		ACTIR-28	404372	7893400	1035	90	0	32	80	3712.54	12.31
		ACTIR-29	404527	7893553	1055	90	0	45	74	3942.54	12.11
		ACTIR-30	404534	7893922	1047	90	0	18	48	4480.77	10.93
		ACTIR-31	404050	7893281	1057	90	0	33	59	6410.20	15.13
		ACTIR-32	404899	7893225	1038	90	0	51	63	5305.54	13.80
		ACTIR-33	404876	7892647	1058	90	0	10	51	4342.98	11.46
		ACTIR-34	404677	7894603	1072	90	0	53	67	5165.90	14.00
		ACTIR-36	405143	7895114	1019	90	0	6	46	4575.54	15.15
		ACTIR-37	396320	7888840	1024	90	0	22	49	3198.24	10.47
		ACTIR-38	397552	7890890	1022	90	0	20	57	3277.94	11.89
		ACTIR-39	405672	7910407	992	90	0	6	16	4867.20	9.34
		ACTIR-40	406571	7914075	1039	90	0	47	51	6611.91	14.94
		ACTIR-41	422780	7919369	910	90	0	6	12	7564.85	18.02
		ACTIR-42	423471	7921116	959	90	0	17	35	6417.17	18.45

Criteria	JORC Code explanation	Commentary									
		ACTIR-43	407349	7914551	1054	90	0	47	53	9713.40	21.63
		ACTIR-46	386029	7868243	1109	90	0	41	53	4331.61	14.42
		ACTIR-48	380630	7860388	1125	90	0	24	41	4746.34	11.60
		ACTIR-50	381569	7862210	1122	90	0	13	32	3442.69	11.55
		FDTIR-01	402326	7891121	1032	90	0	12.4	21.4	7930.30	20.15
		FDTIR-02	404643	7895024	1033	90	0	34	58	5226.21	12.47
		FDTIR-03	405585	7892798	1019	90	0	3	26	6972.28	14.58
		FDTIR-04	401235	7888631	1052	90	0	16	26	6835.08	17.97
		FDTIR-05	404499	7892925	1051	90	0	19	31.9	5535.54	16.72
		FDTIR-06	405286	7893524	1067	90	0	35	49	4926.38	13.55
		FDTIR-07	404023	7892769	1032	90	0	12	18.45	5453.72	10.60
		FDTIR-08	404389	7895655	1013	90	0	13	79	3787.55	10.06
		FDTIR-09	404241	7894354	1055	90	0	37	92.85	4494.95	12.90
		FDTIR-10	405722	7893594	1004	90	0	0	6	1709.93	5.76
		FDTIR-11	403611	7894297	1016	90	0	35	54.4	4787.55	12.37
		FDTIR-12	403171	7894171	1075	90	0	41	63.8	5958.69	13.86
		FDTIR-13	402835	7893707	1083	90	0	17	81.15	3838.22	11.46
		FDTIR-14	402214	7893320	1011	90	0	20	50.15	5169.93	14.78
		FDTIR-15	401701	7891530	1084	90	0	39	101.3	2019.68	9.55
		FDTIR-16	400647	7891313	1083	90	0	36	93	4281.26	10.42
		FDTIR-17	403000	7894552	1016	90	0	36	91.75	4327.63	11.69
		FDTIR-18	402097	7892865	995	90	0	0	66	4027.60	12.44
		FDTIR-19	403646	7894678	1019	90	0	9	79	4099.00	10.79
Other substantive exploration data	• Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical	• 2 samples were generated for metallurgical tests. A first sample was generated from a composite of aircore drilling samples and sent to the Prosper laboratory in Brazil. A second sample was generated from the composition of auger drilling samples and divided into 3 equal parts, being sent to 3 different laboratories, namely Prosper in Brazil, Ansto in Australia and Anzaplan in Germany. The test results									

Criteria	JORC Code explanation	Commentary
	survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	are inconclusive and have not yet been released.
Further work	• The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). • Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	• Resouro started the 12,000m aircore and diamond drilling survey campaign in September 2023 with earlier results received and reported in this report. Following the completion of this program Resouro plans to carry out a detailed topographic survey of the entire research area, in addition to a completion of the topographic survey of the collar of the auger holes and the new aircore and diamond holes using precision equipment. A detailed drilling campaign of the most prospective areas is presently being scheduled along with preliminary metallurgical testwork.

GE21 Consultoria Mineral

Independent Technical Report on the Novo Mundo Project, Mato Grosso, Brazil

Developed by GE21 Consultoria Mineral Ltda. on behalf of:

Resouro Strategic Metals Inc.

Author and Competent Person:

Mario Conrado Reinhardt, MAIG

Effective Date: 12th September 2023

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1. SUMMARY

Mr Mario Conrado Reinhardt of GE21 Consultoria Mineral Ltda. (**GE21**) was contracted by Resouro Strategic Metals Inc. (**RSM**, the **Company** or **Resouro**) to review the exploration results of a drilling and trenching program executed at the Novo Mundo Project (**Novo Mundo Project**). GE21 was subsequently retained to prepare an Independent Technical Assessment Report (**ITAR** or **Report**) for use in a prospectus to support an initial public offering to enable a listing on the Australian Securities Exchange (**ASX**). The funds raised will be used for continued exploration of the Novo Mundo Project areas held by Resouro.

The Novo Mundo Project is located in the Alta Floresta Gold Province (**AFGP**) close to the northern border of the state of Mato Grosso in central Brazil. Located within the Novo Mundo Project licence area is the small town of Novo Mundo that developed as a result of historical gold rushes and the growth of the agricultural sector in the region.

There is a large collection of historical information relating to the Novo Mundo Project available in the form of technical reports and various databases with drilling data, geochemical, geophysical, and geological work completed by past exploration companies which include several reputable mining companies such as RJK, Rio Tinto, Graben and NEXA. The programme completed by GSM between 2011 and 2013 led to a "Final Exploration Report" being filed with the ANM-Brazilian Mining Agency in May 2015.

The characteristics of the main detected Au (Cu, Pb, Zn, Mo) mineralization of the Novo Mundo Project fall into two main types. Firstly, gold more disseminated hosted in muscovite/sericite quartz (chlorite) sulphide alteration zones of the host syeno-granites with rare quartz veining associated and enveloped by potassic and propylitic hydrothermal alteration. Secondly, gold mineralization in vein structures like epithermal gold narrow quartz vein deposits. Based on the evidence of a close spatial relation of the gold deposits with granitic intrusions and the presence of hydrothermal alteration halos, a porphyry-epithermal magmatic-hydrothermal system is interpreted to be responsible for the gold deposits of the Novo Mundo Project.

Despite only partial success of historical exploration campaigns, several geological, geochemical and geophysical anomalies observed in the historic data are, in the Author's opinion, favourable targets that could lead to a potential expansion of mineralised zones in the Novo Mundo Project area. Based on data integration of the available exploration data, GE21 recommends as a priority that RSM undertake IP/Resistivity survey over the most potential mineralized structures and targets, perform an exploratory 2500m RC drilling campaign along the new south parallel trend indicated by rock geochemistry and perform a second diamond drilling campaign of around 3500m including an infill drilling program based on IP /resistivity surveys with the aim to produce a JORC compliant resource estimation.

The Author and GE21 consider the proposed budgets are consistent with the exploration potential of the Novo Mundo Project and are adequate to cover the costs of the proposed programs. The budgeted expenditure is also sufficient to meet the minimum statutory expenditure on the claims. The Author and GE21 consider the type of exploration and weighting towards the Novo Mundo Project as appropriate.

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UNITS, SYMBOLS AND ABBREVIATIONS

Unless otherwise stated, the units of measurement in this Report are all metric in the International System of Units (**SI**). All monetary units are expressed in Australian Dollars (**AUD**), unless otherwise indicated.

The historical data is mostly recorded in the UTM projection SA690 Zone 21 South, however some maps use the projection SIRGAS 2000 Zone 21S.

Main Abbreviations	
Short Form	**Long Form**
AIG	Australian Institute Of Geoscientists
ANM	Agência Nacional De Mineração (National Mining Agency)
Au	Gold
AuEq.	Gold Equivalent
AUD$	Australian Dollars
AusIMM	Ausimm Australasian Institute Of Mining And Metallurgy
CP	Competent Person
DD	Diamond Drilling
DMS	Dense Media Separation
DNPM	Departamento Nacional De Produção Mineral (National Mining Agency)
EL	Exploration License
EIS	Environmental And Social Impact Studies
GPR	Ground Penetration Radar
g	Gram
g/t	Grams Per Tonne
ha	Hectare
JORC	Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. The JORC Code, 2012 Edition. Prepared by: The Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientist and Minerals Council of Australia.
kg	Kilogram
kL	Kilolitre
km	Kilometre
Km2	Square Kilometre
L	Litre
L/s	Litres Per Second
m	Metre
MAIG	Member Of The Australian Institute Of Geoscientists
mg/L	Milligram Per Litre
mamsl	Metres Above Mean Sea Level
mm millimetre	Millimetre
ML	Mining License
MRE	Mineral Resource Estimate
m2	Square Metre
m3	Cubic Metre
Mm3 million	Million Cubic Metres

Mt	Million Tonne
oz.	Troy Ounces
PEA	Preliminary Economic Assessment
QA/QC	Quality Assurance And Quality Control
Resouro	Resouro Strategic Minerals Inc
t	Tonnes
t/h	Tph Tonnes Per Hour
t/m	Tpm Tonnes Per Month
t/m3	Tonnes Per Cubic Metre
t/y	Tpa Tonnes Per Year
y	Year
µm	Micrometre
°C	Degrees Celsius
%	Per Cent
% w/w	Weight To Weight Ratio, Percentage By Weight

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2. INTRODUCTION

Mr Mario Conrado Reinhardt of GE21 was contracted by Resouro to review the exploration results of a drilling and trenching program executed at the Novo Mundo Project. GE21 was subsequently retained to prepare this ITAR for use in a prospectus to support an initial public offering to enable a listing on the ASX. The funds raised will be used for continued exploration of the Novo Mundo Project areas held by Resouro.

This ITAR is to be included in its entirety or in summary form within a prospectus to be prepared by Resouro, which is to be provided to ASX and Australian Securities and Investments Commission (**ASIC**), to support an initial public offering and admission of the Company to the Official List of ASX. It is not intended to serve any purpose beyond that stated and should not be relief upon for any other purpose.

2.1. Sources Of Information and Data

GE21 Consultoria Mineral Ltda. and the Author has relied on Resouro for information on mineral claims location and status, surface rights, ownership, agreements, historic data and royalties explained in the Section 3 of this Report. GE21 Consultoria Mineral Ltda. and the Author have not independently verified ownership or mineral title beyond information that was provided by Resouro. The Novo Mundo Project property description presented in this Report is not intended to represent a legal or any other opinion as to the title. Refer to the Brazilian Solicitor's Report included in the prospectus issued by Resouro for details regarding title.

2.2. Qualifications, Experience, and Independence

GE21 is a specialized, independent mineral consulting company. The GE21 staff members are accredited by the Australian Institute of Geoscientists (**AIG**) as "Competent Persons" for the declaration of Exploration Results and Mineral Resources and Ore Reserves. The Author of this Report has the required qualifications, experience, competence, and independence to be considered a "Competent Person", as defined by JORC.

Neither GE21, nor the Author of this Report, have, or have had, any material interest invested in Resouro nor the property or any of their related entities. GE21's relationship with Resouro is strictly professional, consistent with that held between a client and an independent consultant. This Report was prepared in exchange for payment based on fees that were stipulated in a commercial agreement. Payment of these fees is not dependent on the results of this Report.

2.3. Competent Persons

The Competent Person responsible for this ITAR for public purposes is Mr Mario Conrado Reinhardt, who is responsible for all sections of this Report.

The information in this ITAR that relates to the exploration targets is based on and fairly represents information and supporting documentation compiled and conclusions derived by Mr Reinhardt.

Mr Reinhardt is a trained geologist, a Member of the Australian Institute of Geoscientists (**MAIG**) and has sufficient experience that is relevant to the styles of mineralization and types of deposit under consideration to be considered as a Competent Person (**CP**). Mr Reinhardt has more than 35 years' experience working with and reviewing exploration and mining projects worldwide

including in the Novo Mundo region and visited the Novo Mundo Project as the Competent Person on the 10th and 12th of September 2023.

Mr Reinhardt consents to the inclusion in this ITAR of the matters based on his information and supporting documentation in the form and context in which it appears.

2.4. Reliance on other experts

In preparing this Report, the Competent Person has relied on technical input and the provision of data from experts others than those working for RSM. Other experts who have contributed to the provision of relevant data for the compilation of this Report are listed in Section 17 and although numerous reports were observed to have be undertaken by previous owners of Resouro's tenements these reports, except those noted in this Report were not material in the development of this ITAR's conclusions and recommendations. The authors of the public sources have not consented to their statements use in this ITAR, and these statements are included in accordance with ASIC Corporations (Consent to Statements) Instrument 2016/72.

3. PROPERTY DESCRIPTION AND LOCATION

3.1. Project Description & Ownership

The Novo Mundo Project is located in the AFGP close to the northern border of the state of Mato Grosso in central Brazil (Figure 3-1). Located within the Novo Mundo Project licence area is the small town of Novo Mundo that developed as a result of historical gold rushes and the growth of the agricultural sector in the region. The towns coordinates are 9° 58' 32" South, 55° 10' 40" West and is part of the municipality of the same name. Novo Mundo is 30 km west from larger town of Guarantã do Norte. Guarantã do Norte is a Brazilian municipality in the State of Mato Grosso and has an estimated population in 2020 of 36,130 inhabitants (per IBGE 2020).

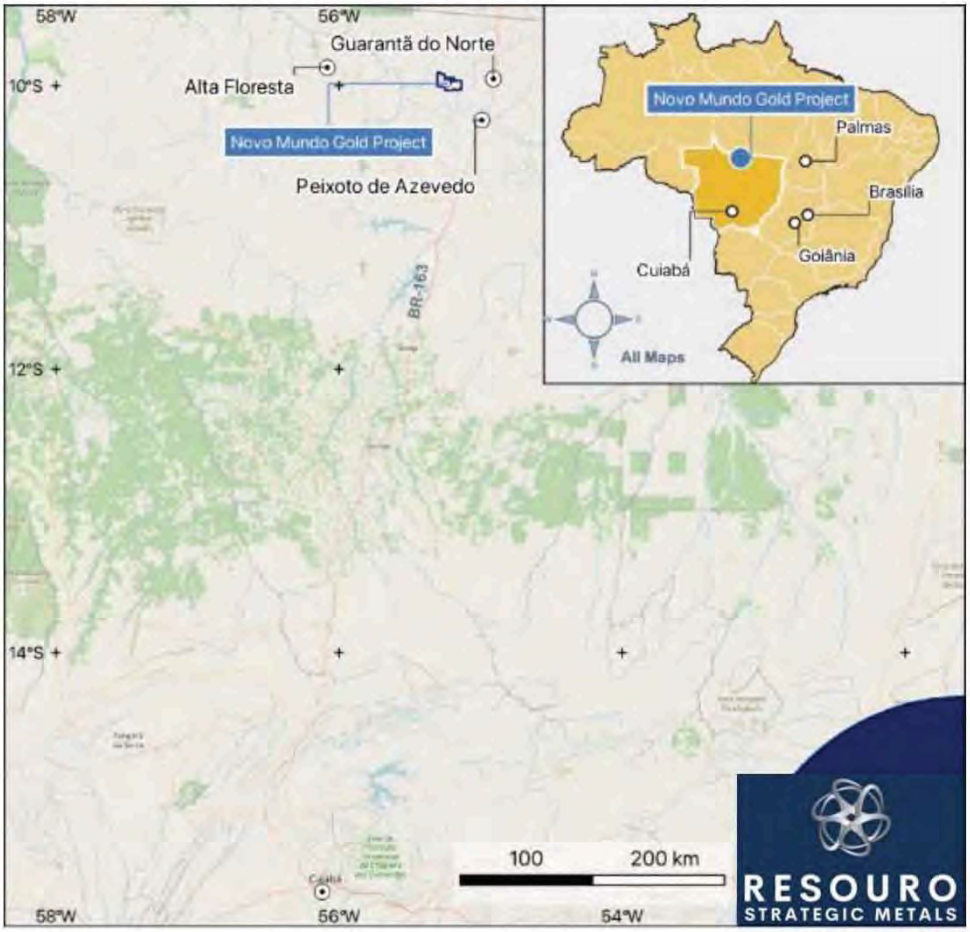

Figure 3-1: Location of the Novo Mundo Gold Project

3.2. Mineral Tenure

The Novo Mundo Project involves 3 contiguous ANM mineral processes numbered 866.035/2009, 866.320/2018 and 866.171/2018 with a total area amounting to 16,734.94ha. Resouro do Brasil

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Mineração Ltda (**Resouro do Brasil**), Resouro's wholly owned Brazilian subsidiary, was assigned the three licenses, summarised and explained in table 3-2 below.

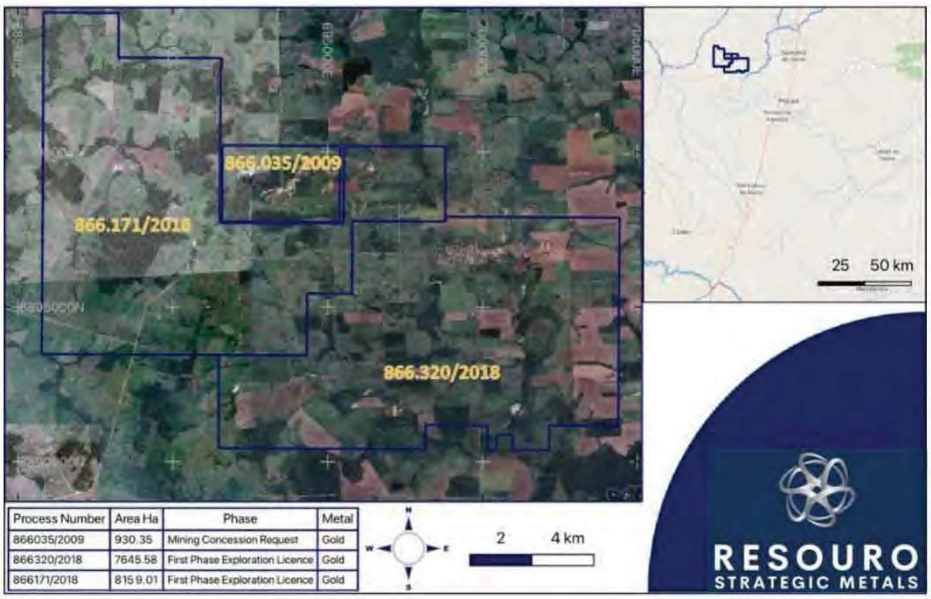
The processes numbered 866.320/2018 and 866.171/2018 are classed as exploration licences in the second phase of exploration and share an expiration date of 2025/08/07 and 2026/07/28 respectively. As per the Brazilian mining code, a Final Research Report (RFP - Relatório Final de Pesquisa) is to be submitted at ANM. The process numbered 866.035/2009 received on the date of 25 August 2022 an authorization for execution of a Pilot Mining Operation (called Guia) limited to 50,000 tons per year and for 3 years, finishing at 25 August 2025, when it can be extended for additional periods or substituted by a PAE (also named Plan for Economic Exploitation), which is a mining plan. Refer to the Brazilian Solicitor's Report included in the prospectus issued by Resouro for further details regarding tenure.

Tenement	Area (Ha)	Status	Municipalities	Holder	Assignee	Grant date	PER Due	Renewal Date	FER Due
866.320/2018	7645,58	Exploration Permit	Novo Mundo/MT	Ison do Brasil Mineração Ltda	N/A	September 6, 2018	June 08, 2026	August 07, 2023	August 07, 2026
866.171/2018	8159	Exploration Permit	Novo Mundo/MT	Nexa Recursos Minerais S.A.	Brazil Copper Mineração LTDA	September 6, 2018	May 28, 2026	July 27, 2023	July 27, 2026
866.035/2009	930,35	Right to Apply for Mining Concession	Novo Mundo/MT	Ison do Brasil Mineração Ltda	N/A	April 4, 2009	March 24, 2015	May 23, 2012	May 23, 2015

Table 3- 2 Tenement status list

Exploration licenses are granted for up to three-year periods. Licenses require an interim report two-months prior to license expiration (if an extension is to be applied for), describing exploration results, interpretation, and expenditures. The renewal of a license may be granted at the discretion of the ANM by considering the exploration works undertaken by the holder. A final report is due at the end the term or on relinquishment of the license. The size of an individual license area ranges from 50ha to 10,000ha depending on the state and the commodity.

During the period of exploration licenses, it is also possible to license a Pilot Mining Operation (known as Guia de Utilização) for small scale mining and testing, up to 50,000 tonnes per year, renewable, until all the exploration work is completed. After concluding and filling a final exploration report the licenses can be changed to a definitive mining concession.



Process Number	Area Ha	Phase	Metal
866035/2009	930.35	Mining Concession Request	Gold
866320/2018	7645.58	First Phase Exploration Licence	Gold
866171/2018	815.9.01	First Phase Exploration Licence	Gold

Figure 3-2: The location of mineral rights

3.3. Royalties

Landowners and governments (municipal, state, and federal) are entitled to Gross Overriding Royalty ("**GOR**") which range from 1 to 3.5% depending on the mineral being extracted. Operations for gold are subject to a 1% royalty on gross metal sales net of taxes levied on sales. Mining activities are subject to both federal and state level environmental licensing.

3.4. Ownership

On the 11th of May 2021, Resouro do Brasil Mineração Ltda, a wholly own subsidiary of Resouro Mining Pte Ltd, signed a definitive agreement with Nexa Recursos Minerais S.A (formally Votorantim Metais Zinco S.A). Nexa was at that time, directly or indirectly, the sole and rightful holder of the mineral right with the process numbers 866.035/2009, 866.320/2018 and 866.171/2018. As part of this agreement, these mineral rights were formally assigned to Resouro at the ANM. This definitive agreement provided Resouro do Brasil the exclusive rights to conduct exploration and eventually, subject to feasibility and permitting, develop a commercial precious metal mining operation. The acquisition consisted of a payment of USD350,000 for the purchase of 100% of the mineral rights with Nexa being granted a net smelter royalty of 1.5%.

As part of the definitive agreement, Nexa has the right to, at their own cost and expense, explore for base metals, provided that the works do not interfere with nor delay Resouro's exploration programmes. If Nexa discovers a commercially viable base metals project, Nexa will grant Resouro a 1.5% net smelter royalty.

On the 18th of November 2018, Nexa signed an agreement with the Coogavepe – Cooperative de Garimpeiros do Vale do Rio Peixoto (the **Coogavepe Agreement**). The Coogavepe Agreement involved the transfer of mineral rights to Nexa in return for exploration and

development expenditure. As part of the definitive agreement, Resouro has agreed to assume responsibility for the Coogavepe Agreement, as such, Resouro is liable to Coogavepe for certain obligations thereunder, including an additional royalty of 1.5% and assigning some areas of the Novo Mundo Project licences to Coogavepe giving them the right to apply for a Permissão de Lavra Garimpeira (**PLG**). The assigned areas are approximately 1.3% of the Novo Mundo Project licence area and is restricted to secondary gold only (alluvial). The PLG translates to an Artisanal Mining Permit which allows the local miners to extract secondary gold from alluvial (river) sources or weathered soil down to a maximum depth of 30m. Nexa had a good relationship with Coogavepe and Resouro engaged the directors of Coogavepe to ensure that strong relationship was maintained. The terms of the Coogavepe Agreement provide that if the Company determines to continue with the work moving on to the 3rd phase of exploration, it must pay Coogavepe the amount of BRL 2,500,000 (approximately A$782,245) within 30 days of the approval of the first positive partial exploration report delivered to ANM. The approval of the first Partial Exploration Report occurred in January 2023, and the Parties agreed on parcelling the mentioned amount, being BRL 750,000 due and paid 20 December 2023, BRL 250,000 due and paid 20 February 2024, and BRL 1,500,000 due 31 May 2024. Upon granting the mineral processes and rights to the Company in any exploration area, the Company shall pay to Coogavepe, from the effective sale of the ore extracted from the exploration areas, a 1.5% net smelter royalty.

Surface Rights: The surface rights in Brazil belong to the landowner and not the mineral rights holder. As such, the surface rights within the Novo Mundo Project licence area are held by several farmers. As standard in Brazil, Resouro has started to engage with the landowners to form the relevant agreements and to continue the agreements previous licence holders had in place. Exploration License holders are entitled to access their license area and work on it whether it is public or privately held, but such holders must compensate the owner or occupier of the surface rights for losses caused by the work (indemnification) and for the occupation of the land (rent). Compensation may be negotiated on a case-by-case basis, but the Brazilian mining code provides that, should a court of law be required to set the amounts, the rent for occupation of the land cannot exceed the maximum net income that the owner or occupier would earn from its agricultural-pasture activity, and the indemnification cannot exceed the assessed value of the area of the property being used for exploration.

Annual License Fees: Annual license fees for Exploration Licenses are based on the area size and are calculated at R$3.29/ha for the first license term and R$5.00/ha in subsequent terms. The minerals rights Resouro holds have an annual fee of approximately US$12,000. Each license holder must submit an exploration plan, budget, and timeline, although there is no work or expenditure requirement.

3.5. Environmental Permits, Studies and Considerations in Brazil

The permitting process applicable for exploration properties has been described above but the following summarizes the permitting process required for the mining phase.

The Brazilian mining licensing process can involve two levels: federal or state. Whenever a mining concession is entirely located within a state of Brazil, the State Environmental Protection Agency (**EPA**) is responsible for issuing the licenses. When the mining concession covers more than one state, or if the mining projects has a major national or regional environmental impact, the Federal Environmental Agency (**IBAMA**) is responsible or the issuing the licenses. Novo Mundo is located

within Mato Grosso and has no national or regional impact and so will be subject to the State EPA level.

3.6. Preliminary license

A presentation of the Environmental Impact Study to the EPA, along with other documents such as the Declaration of Land Use of Municipal Authorities, proposal for exploration in ANM process, general form regarding company and project, copies of public notifications in daily and government newspapers, and proof of EPA fees payment is required to obtain the license. In this phase, a public meeting may be required before issuance of the Preliminary License by the EPA. The meeting may be requested either by the EPA or a non-governmental organization (**NGO**) at least 45 days prior to the EIS presentation to EPA. The granting of a Preliminary License indicates that the regulatory agency and community both have approved the Environmental Impact Study.

3.7. Implementation license

The granting of this license depends on the presentation of Environmental Control Plans to the State EPA. The application comprises of plans for environmental control and reclamation. Documents showing the approval of additional permits such as Deforestation Permit and Water Use Permit were also submitted.

3.8. Operation license

This license is granted after the terms of the construction for the Novo Mundo Project have been completed. This includes the implementation of the environmental control plans and the presentation of the Mining Rights issued by the ANM. This phase corresponds to the final construction stage of the mine. Later other laws are applicable to regulate the continuation of environmental impact studies and reports for the ongoing mining activities.

3.9. Other permits

Other permits generally required by mining companies may include: water use right/permit, army and Federal Police permits, deforestation permit, discharge permit, hazardous transportation/disposal permit, archaeological recovery permit. None of these requirements will be necessary in the case of exploration work of the Novo Mundo Project. Most land is eligible for licensing in Brazil, except when the Novo Mundo Project is located in protected areas, and it does involve vegetation suppression. Novo Mundo Project is not located in environmentally protected areas.

3.10. Environmental Liabilities of Novo Mundo Project

Part of the primary vegetation was already removed by farmers and now the landscape is utilized primarily as agricultural pasture and as such this land use does not present any environmental liabilities.

There has been small-scale exploitation of gold for several decades at the Novo Mundo Project by informal miners. The methods employed by these artisanal miners generally involve processing material from old river channels or the part of the gold bearing veins that have been weathered by climate actions. These mining activities have resulted in several pits, land excavations and waste dumps. These have left a visible legacy but Resouro or GE21 are not

aware of any environmental breaches registered with the state environmental agency on any of the licenses. Resouro will communicate any environmental liabilities they identify to the ANM immediately after the mineral rights assignments have been published in the federal gazette.

Based on the information provided by Resouro and GE21's site visit, no other known environmental liabilities have been identified. This includes no forbidden factors that could invalidate future applications for environmental permits required to facilitate the proposed exploration programme or the eventual mining activity. For the full assessment of environmental liabilities, the Author recommends the appraisal of the current situation of the new acquired tenements evidenced by a map and the preparation of a specific study to formally document any Garimpeiro activity, past or expected.

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4. ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

4.1. Accessibility

The Novo Mundo Project area can be accessed from the state capital Cuiabá in approximately 10 hours by car along 740km of paved highway BR-163. Two regional airports are located within a 4 hour drive of the Novo Mundo Project: Sinop, 265 km to the south and Alta Floresta to the west. Regular flights from Brasilia, Cuiabá and Sao Paulo service these airports. The Novo Mundo Project licences are serviced by various farm tracks that propagate off from the gravel/asphalt road MT-419. The general location of the Novo Mundo Project is shown in Figure 4-1. The inset shows the relatively flat topography of the property where elevation ranges from 248m to 392m. The closest town to the Novo Mundo Project is Novo Mundo, located on the MT-419 road that connects the property to the bigger population centre, Guarantã do Norte.

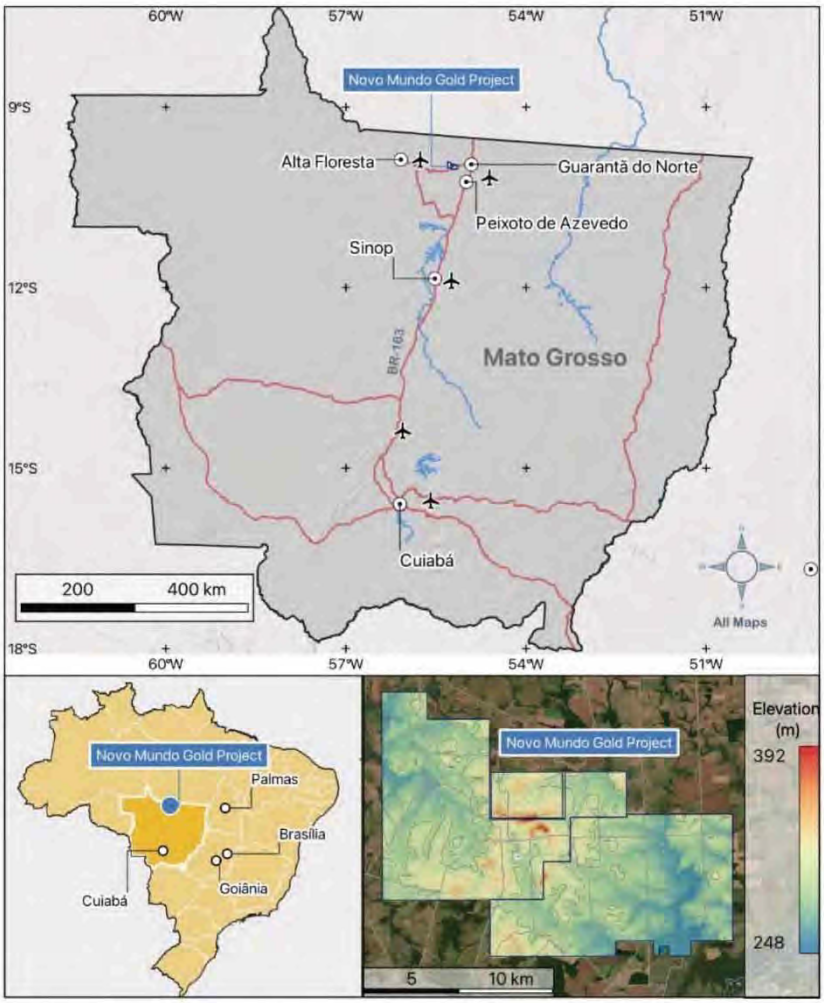

Figure 4-1: Localization, elevation, and principal access roads

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4.2. Climate

The climate is seasonal tropical and characterised by high humidity with temperatures ranging from 20°- 36°C. Average annual rainfall is 2,000mm, mostly between November and April (Figure 4-2). Exploration at the Novo Mundo Project can be completed year-round with some additional challenges during the rainy season.

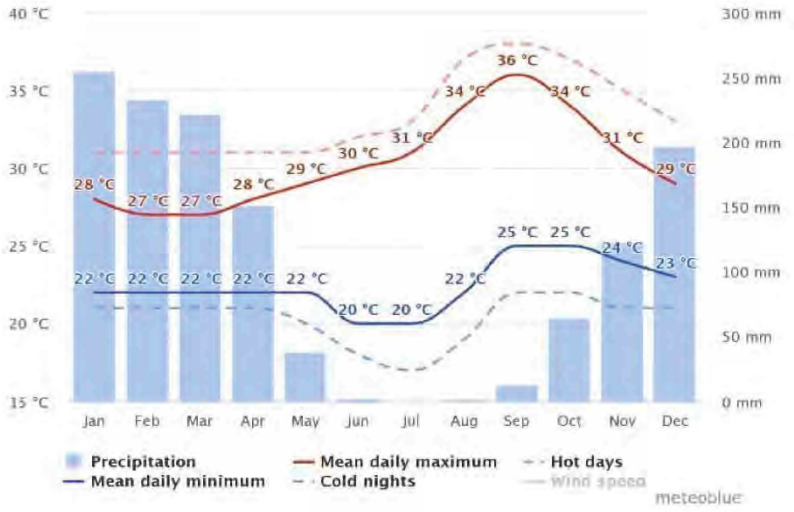

Figure 4-2: Climate graph. Source: Meteoblue.com, 2021

4.3. Local Resources and Infrastructure

The town of Novo Mundo is the closest population centre to the Novo Mundo Project and is equipped with all basic local amenities. However, Guarantã do Norte, Matupa and Peixoto de Azevedo are larger and better equipped. These three cities make up the regional agricultural hub and as such, there is an abundance of un-skilled and semi-skilled labour, hotels, banks and various small and large equipment suppliers. Within a radius of 40km there are approximately 70,000 people.

There exists no on-site field camp, and core is currently being stored within Nexa's facilities in Guarantã do Norte. Resouro will seek to establish a field camp within the Novo Mundo Project licence area and arrange a core and equipment storage facility in Guarantã do Norte.

Surface water is plentiful in the area with portable pumps capable of providing sufficient water for exploration activities such as drilling. Farm tracks service the majority of property. No power exists on site however two 138 kV powerlines pass by the property and the town of Novo Mundo has a residential power supply.

4.4. Physiography and Vegetation

The region of the Novo Mundo Project is located slightly south of the edge of the Graben do Cachimbo and is mainly flat with medium-sized hills. The altitude of the greater region ranges from 300 to 800m above sea level. The main geomorphological feature is the Serra do Cachimbo located north of the Mining Processes. The Novo Mundo Project is in the Teles Pires River Basin, between the valleys of the Teles Pires rivers to the west and the Rio Braço Norte to the east. The Braço Norte River is a tributary of the Peixoto de Azevedo River, which in turn is an important tributary of the Teles Pires River Basin. The native vegetation of the region of the Novo Mundo Project is forest with medium-sized trees corresponding to the Amazon Forest, however, almost all the vegetation present on the surface of the concession package has been replaced by pastures for livestock, and land for the agriculture sector. Part of the vegetation that remains, referred to as secondary forest characterised by medium-sized trees.

5. HISTORY

Table 5 below summaries the historical exploration work that has been undertaken at the property over the last several decades. Most of this work has been concentrated on the exploration license 866.035/2009 (930.35 ha) and carried out by RJK Resources (**RJK**), Rio Tinto Zinco (**RTZ**), Graben Mineração SA (**GMS**) and Nexa Resources (**Nexa**). This area of focus is situated within a farm belonging to Mr Dionísio and most of the historical maps refer to the region as Dionísio.

The works consisted of terrestrial geophysics, airborne geophysics, geochemistry and exploratory drilling. The geophysical data are only available on scanned maps. Some data from the historical exploration has been recovered and preserved by Nexa and are available to Resouro however, validation of much of this data has not been possible and this is noted by the Author in the text where relevant. The following sub-sections detail this work in more detail including the Author's own review.

Year	*Exploration Summary*
1980 - 1997	Beginning in 1980, the Novo Mundo region was intensively worked by informal miners (garimpeiros) whose activities were focused on the alluvium and later some primary gold ore occurrences. The sites known as Luisão/Cláudio, Edmar, Raimunda, Júlio and Valdeci were superficially developed.
1997	The company RJK carried out IP geophysical surveys on a 200m grid, covering an area of 4.0 x 2.5 km, showing several resistivity alignments with varying intensity from weak to high. These correlated with surface sulphide zones, generating several targets for exploratory drilling. RJK partially tested these with diamond drilling for a total of 717.86 m with 7 holes. The best intersections were hole RJK-01 with 26.24 m at 2.94 g Au/t at the Luisão target and hole RJK-05 with 4.89 m at 6.18 g Au/t at Raimunda target.
2000 - 2001	Rio Tinto's Brazilian subsidiary, RTZ, performed: geological mapping, soil geochemistry, ground geophysics of magnetometry and radiometry, rock sampling and diamond drilling focusing on the Luisão target. This drilling totalled 1,086.35 m with 10 holes. The best intersections were in hole FNV-004 at 10.48m at 1.47 g Au/t, hole FNV-005 at 1.55m at 5.71 g Au/t and hole FNV-009 at 5.26 m at 6.82 g Au/t.
2009	In 2009, the license area in focus was requested by COOPEGAVE - Cooperative of Garimpeiros in Vale do Rio Peixoto, which started some reconnaissance exploration activities immediately after the publication of the title in the DOU in April 2009.
2012 - 2015	In 2012, COOPEGAVE entered into a partnership with GMS to continue exploration and the assessment of the gold potential of the area. GMS developed geological mapping, rock and channel/chipping sampling, airborne geophysics interpretation, soil geochemistry. They completed a diamond drilling campaign between 2011 and 2013, with 3698.35 m in 26 holes. Based on the exploration results GMS filed a Final Exploration Report with the ANM- Brazilian Mining Agency in May 2015.
2018- 2020	In 2018, Nexa (formerly Votorantim Metais) acquired the Novo Mundo Project from GMS and COOGAVEPE. Until 2021 they developed exploration work on the 3 tenements consisting of geological mapping, a wide coverage of soil and rock geochemistry, a survey of magnetometry, petrographic studies of drill cores, 3D

Year	Exploration Summary
	integration of previous data and some deep IP and 3 AMT (Audio-frequency Magnetotellurics) profiles. On 11 May 2021, Nexa signed a "Definitive Agreement for Mineral Rights Acquisition and Other Covenants" transferring all the information and mineral rights to Resouro with the written consent of COOGAVEPE.

Table 5: Table summarising the history of the Novo Mundo Project

5.1. Geological Mapping

5.1.1. RTZ

In 2000, RTZ completed 1:5000 scale geological mapping and systematic rock sampling along the main trend of the garimpo gold workings, informally named Luisão, Cláudio and Modesto (Figure 5-1). The top aspect of the scanned geologic map shows a WNW-ESE contact between a mafic granodiorite (green) and a partially hydrothermally altered syeno-granite (pale). The main target zone of the hydrothermally altered syeno-granite shows several subparallel lenticular tectonic zones of silicified breccias (blue).

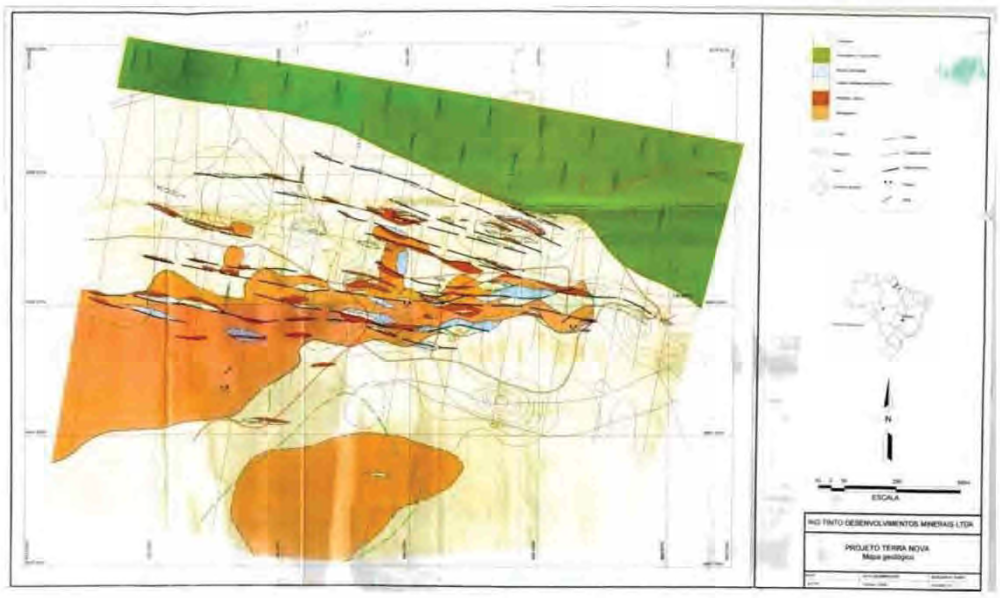

Figure 5-1: Detailed geological map of the Luisão/ Claudio and Modesto targets by RTZ

5.1.2. GMS and Academic Works

Later GMS developed a more regional geological mapping programme with a focus on all the Novo Mundo granite because of its geologic association with several known gold occurrences. Additionally, several published academic studies have focused on the region such as those by Paes de Barros (2007), Miguel Jr (2011) and Xavier (2018). These works added to the geological evolution of this pluton and the map in Figure 5-2 shows the culmination of the regional geological mapping completed to date.

The interpretations from the various phases of regional geological works are described here: the Novo Mundo granite presents itself as an intrusive body in rocks of the Xingu Complex with dimensions of approximately 12x5 km, elongated according to W-NW, coinciding with the direction of the main ductile shear zones and regional lineaments that affect the basement rocks in the region.

The incipient, but conspicuous orientation of the matrix, denoted by the recrystallization and orientation of quartz crystals, preferably aligning to the NW, suggests that its accommodation must have occurred with structural control. This structural control developed under a stress regime, probably associated with the late stages of the formation of shear zones, which are observed to delimit the NE and SW edges of this body.

In general, the pluton that characterizes the Granite Novo Mundo presents a homogeneous deformation of a ductile-brittle character, with zones of local mylonitization. In mineralized zones, families of sub-horizontal fractures are usually identified, with intersecting systems giving rise to anastomosed patterns. Furthermore, other fracture systems with preferred directions N40E/35NW, N20E/80NW, N20W/SV, N70W/40SW and N80W/65NE overlap with the sub-horizontal systems.

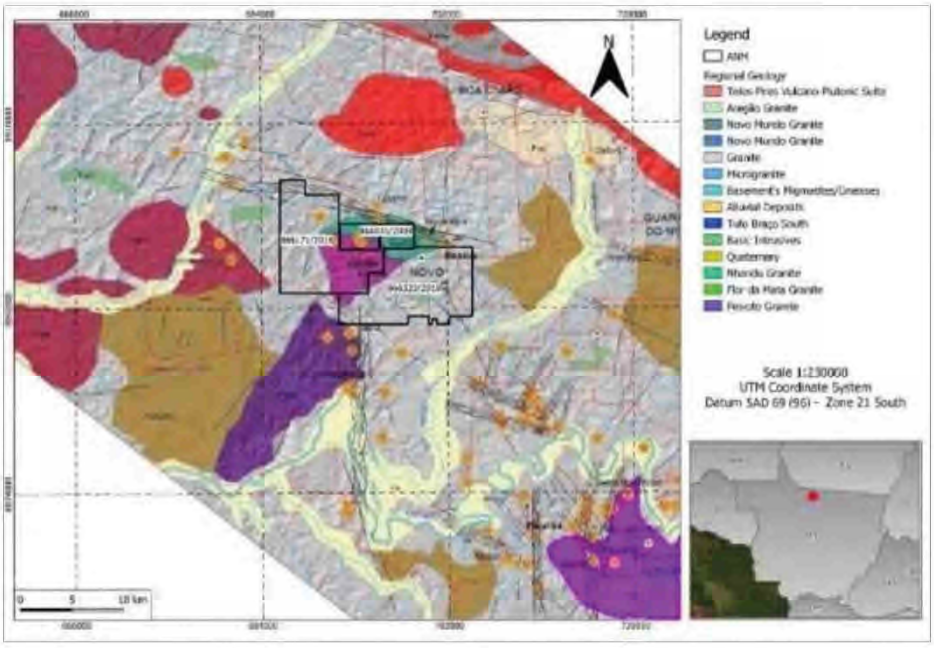

Figure 5-2: The geologic and structural context of the Novo Mundo granite modified after Miguel Jr. (2011).

In its surroundings, granodioritic to tonalitic gneisses predominate, thought be part of the Xingu Complex. The mapping made it possible to individualize two portions in the Granite Novo Mundo:

- in the northern portion, monzogranite predominates, with subordinated granodiorite and syenogranite, where there is an association with thick dykes of basic rocks, represented by gabbros and diorites. The gold occurrences found in this association are represented

by structurally controlled subvertical narrow quartz veins with varying concentrations of sulphides of Epithermal type; and

- in the southern portion, the main facies of the Granite Novo Mundo consist of an equigranular, leucocratic, non-magnetic syenogranite with an oriented structure evidenced by the stretching of bluish quartz crystals, particularly in the condition of more proximal host of the auriferous disseminated mineralization.

Swarms of dykes of basaltic and andesitic composition were recognized in the bodies known as Luizão/Cláudio. Gold mineralization of the vein type is also found associated with this portion of the Granite Novo Mundo.

The disseminated gold mineralization is associated with a strong phyllic alteration, and the pyrite dissemination does not present major deformation features, which indicate that the mineralization is late stage or after the intrusion of the Novo Mundo granitic pluton, with the hydrothermal fluid percolating through brittle structures and discontinuities. Based on drill core descriptions, mafic rocks in the form of multiple thick gabbro and diorite dykes can be noted in the northern portion of the Novo Mundo granite. Also in this context, rocks with compositional banding are observed, but without metamorphic recrystallization or even crystal orientation, characterized by the alternation of leucocratic bands of syenogranitic composition, with mesocratic granodioritic bands (GMS, 2015).

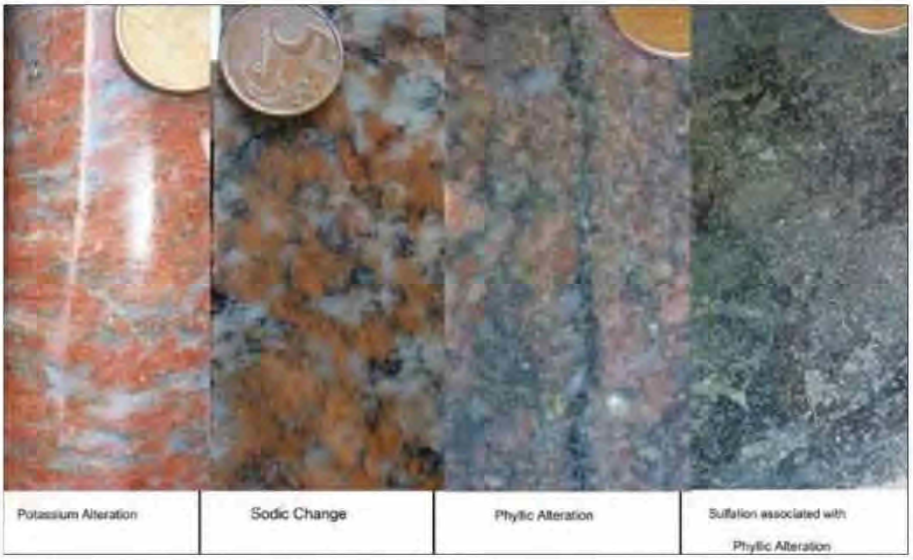

Figure 5-3: Variation of hydrothermal alteration form the host rocks to the main disseminated gold mineralization (example form drill core samples)

It is important to highlight the fact that there are no deformational features, or even orientations, in the core that show cataclastic flow. This finding corroborates the hypothesis that mineralizing fluids percolated along pre-existing discontinuities and that mineralization is at least late with respect to the emplacement of the granite.

5.1.3. Nexa

Nexa integrated historical mapping with geochemical and geophysical data developed to date to produce a detailed geological map covering all the 3 tenements (Figure 5-4).

The map indicates the predominance of the syenogranite delimited in the north by a major tectonic lineament and also shows a trend NW-SE of major basic rocks like with Gabbro/Diorites and diabase crosscutting the main WNW-ESE gold mineralized trend.

Nexa also developed a more detailed alteration map, Figure 5-5, around the main gold anomalies showing a more central zone of where Illite/sericite phyllic alteration predominates. Several major silicification zones controlled by tectonic lineaments are also noted.

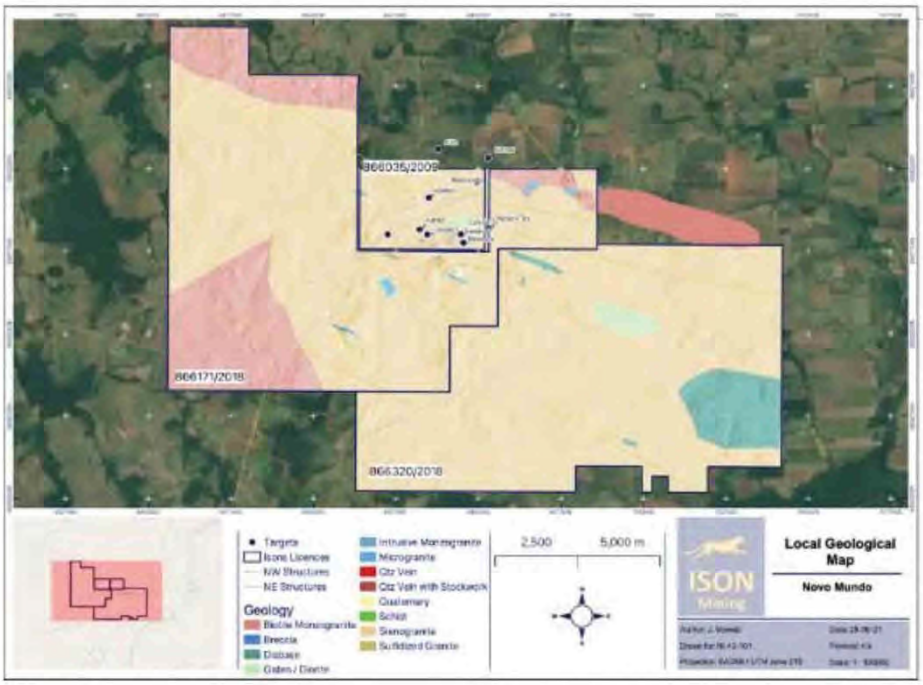

Figure 5-4: Geologic map covering the whole tenements with location of the main known targets in the central part (compiled from Nexa's data base)

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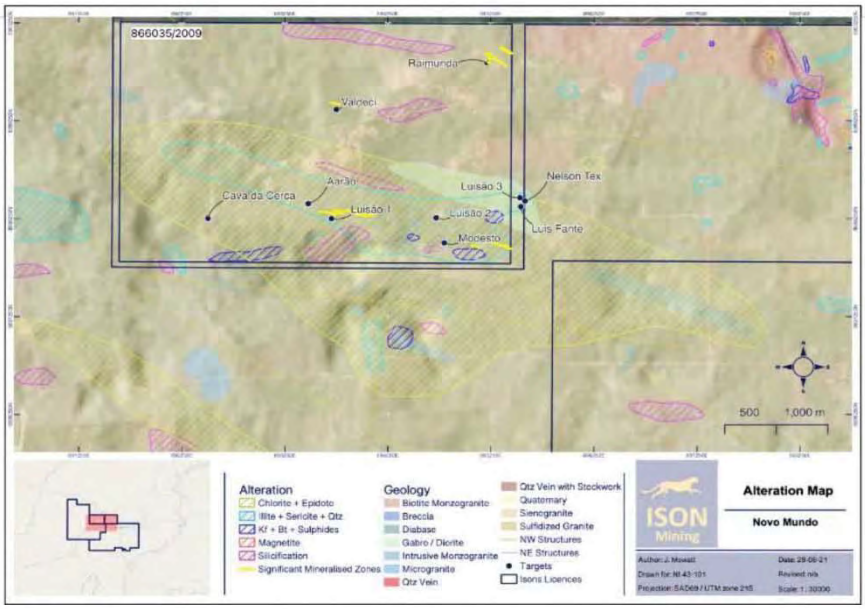

Figure 5-5: Hydrothermal alteration map and main Targets

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5.2. Geophysics

5.2.1. RJK Geophysics

The company RJK carried out IP geophysical surveys on a 200m grid covering an area of 10km^2. The data returned with several weak to high resistivity and chargeability zones correlated with high sulphide zones on a WNW-ESE trend (Figure 5-6). It was possible to identify 2 strong WNW-ESE anomalies with one located at the south and another subparallel 1200m north, positioned around a resistivity low.

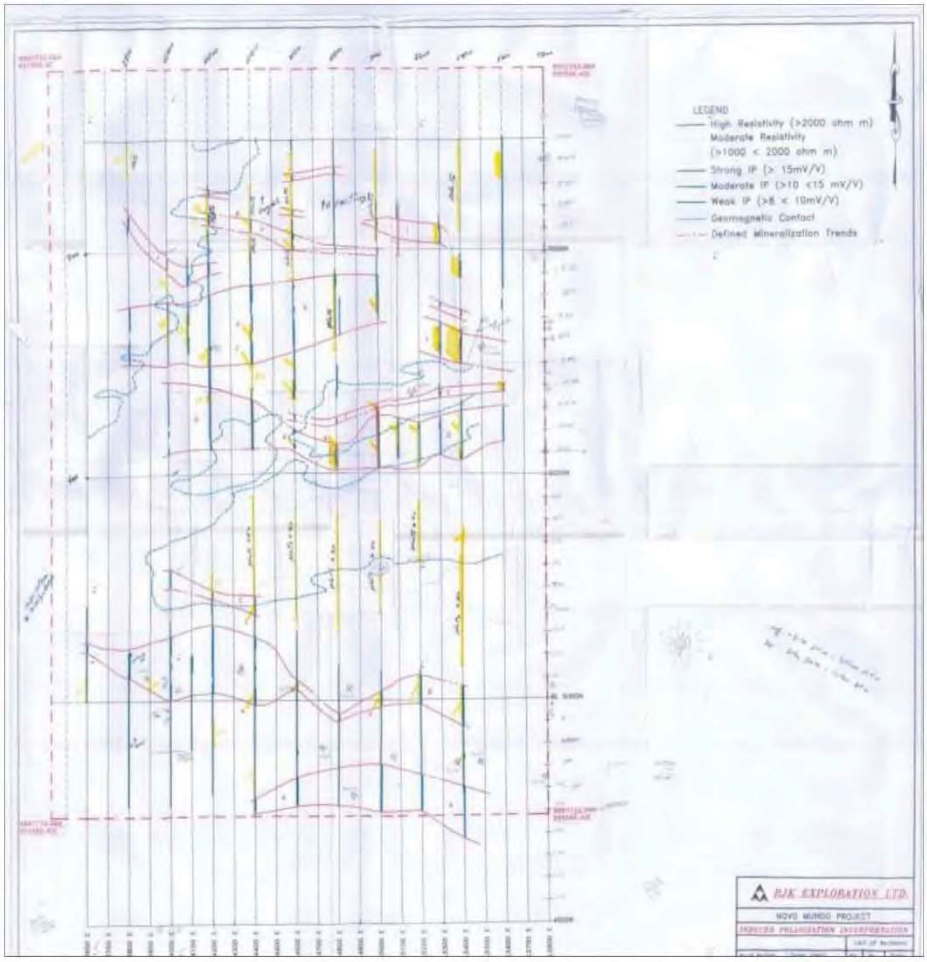

Figure 5-6: Interpretation map of the ground Geophysics – IP from RJK

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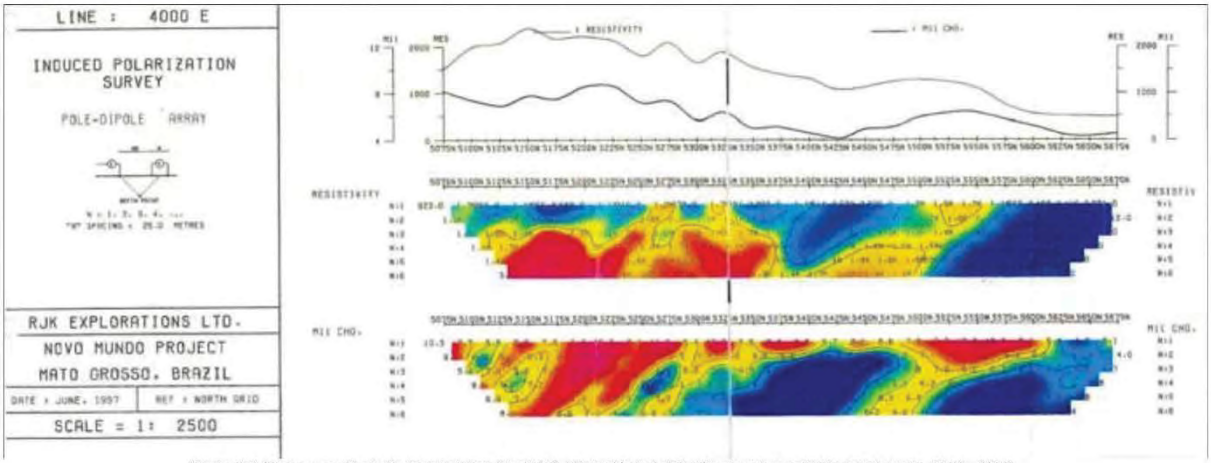

Figure 5-7: IP cross section with interpretation line 4.000 at target Luisão/Claudio showing a significant anomaly- (RJK – 1997)

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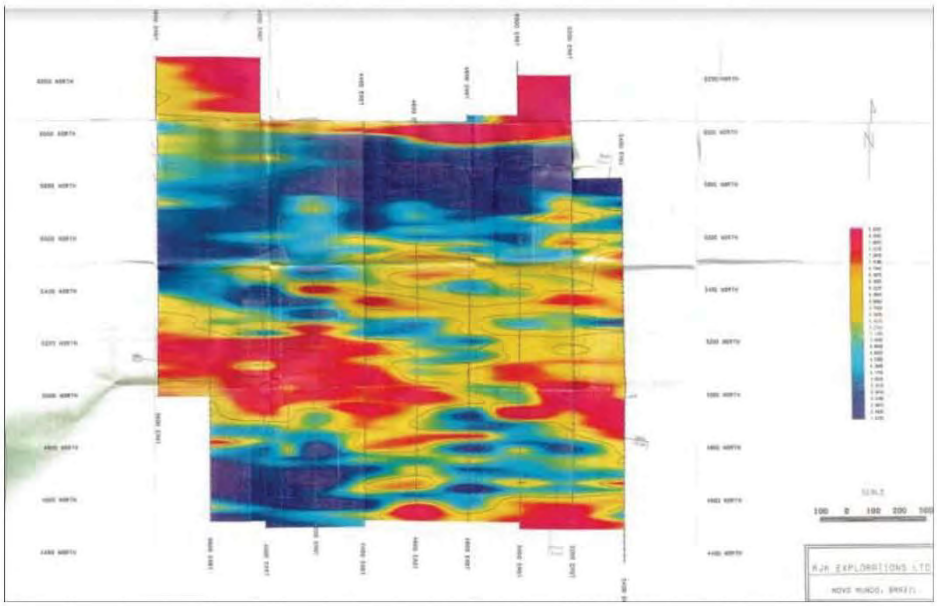

Figure 5-8: Chargeability Map level N-4 showing a strong anomaly of chargeability related to sulphide (RJK- 1997)

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5.2.2. RTZ Geophysics

In 2000, RTZ performed a gridded mag-gamma survey with 200m line spacing and magnetometry readings every 10m and gamma-spectrometry readings every 20m. According to the information contained in the recovered documents, the geophysical surveys showed only the contrasts between granites and rocks of basic composition, without any relation to the mineralization of the area: Figure 5-9 and Figure 5-10.

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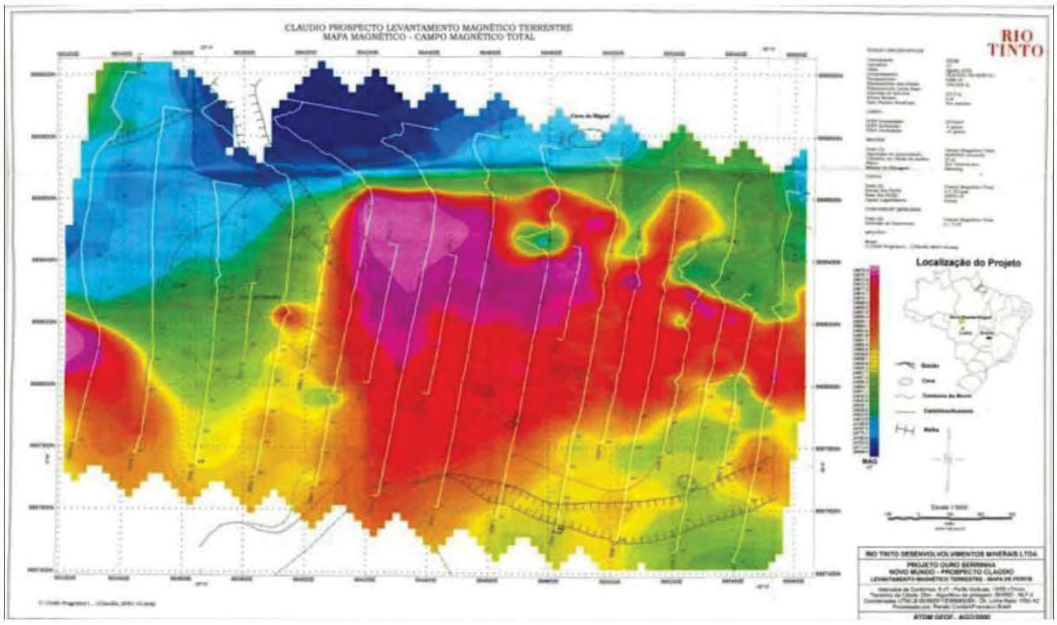

Figure 5-9: Ground Geophysics – MAG Target Luisão/Claudio indicating a Magnetic anomaly

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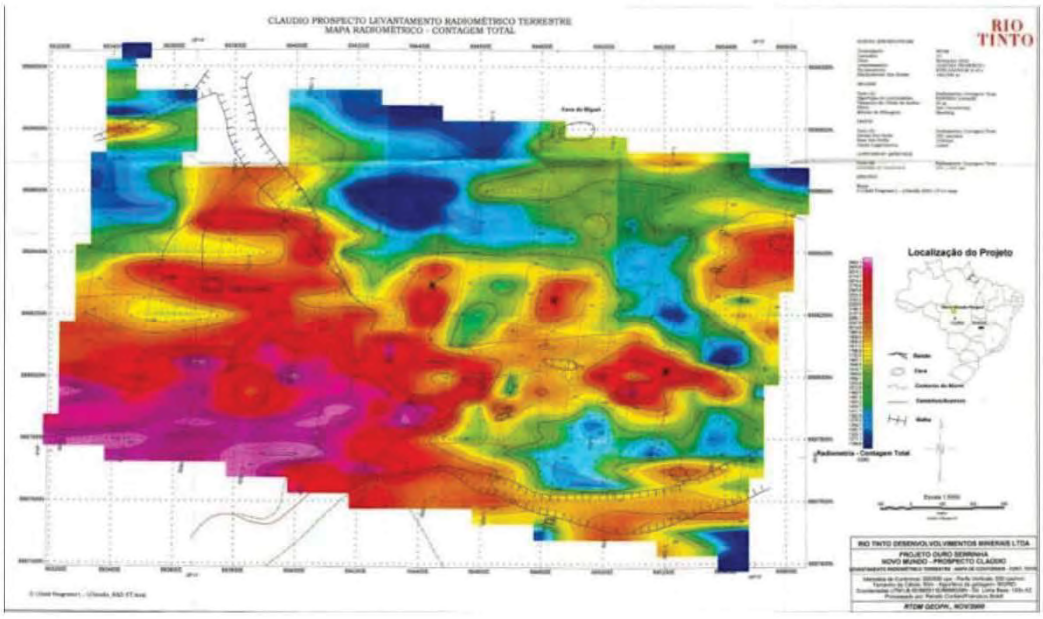

Figure 5-10: Ground geophysics of Total Count Radiometric Map (RTZ)- Target Luisão/Claudio indicating a K anomaly

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5.2.3. GMS Geophysics

In 1991, CPRM developed the Teles Pires Phase 1 Project, consisting of a regional aero-geophysical survey that fully covered 36,300 km^2 of the AFGP, with lines every 2 km. GMS acquired the raw data and hired a specialized company for reinterpretation.

In 2012, GMS hired companies Lasa Prospecções SA and the Fugro Airborne Surveys, for conducting airborne geophysical surveys and data interpretation respectively. This work consisted of a gradiometric-magnetometry survey and high-resolution gamma-spectrometry.

The potassium variation indicates a strong K anomaly in the region of the altered Novo Mundo granite (Figure 5-11).

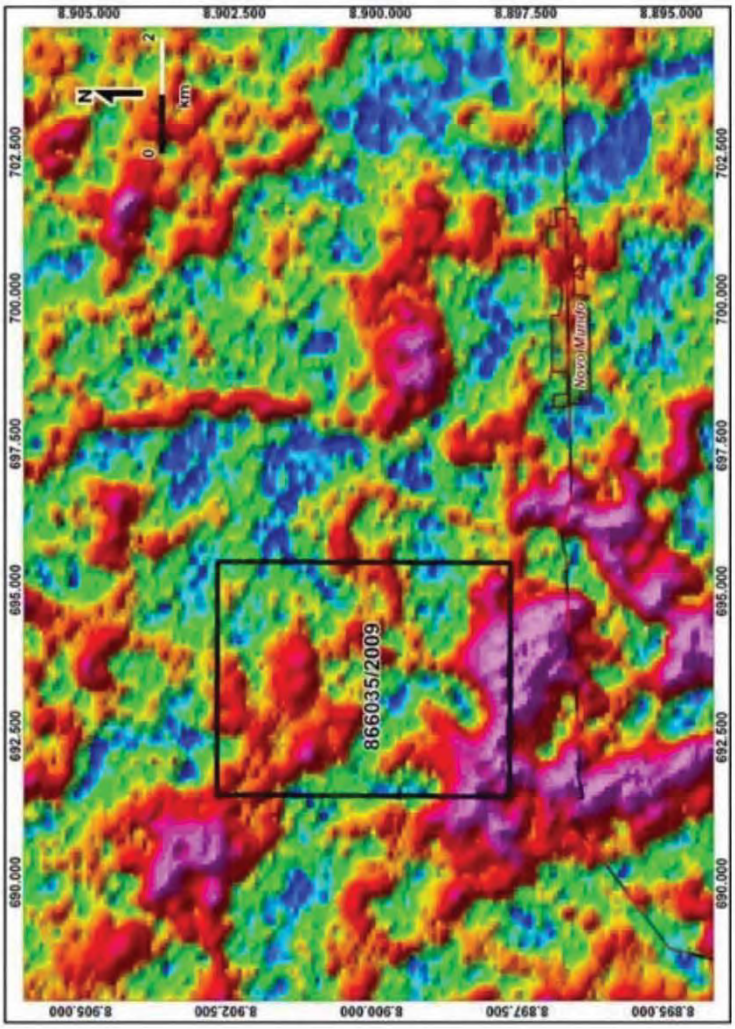

Figure 5-11: Potassium concentration indicating a strong K anomaly in the southern part of the 866.305/2009 tenement

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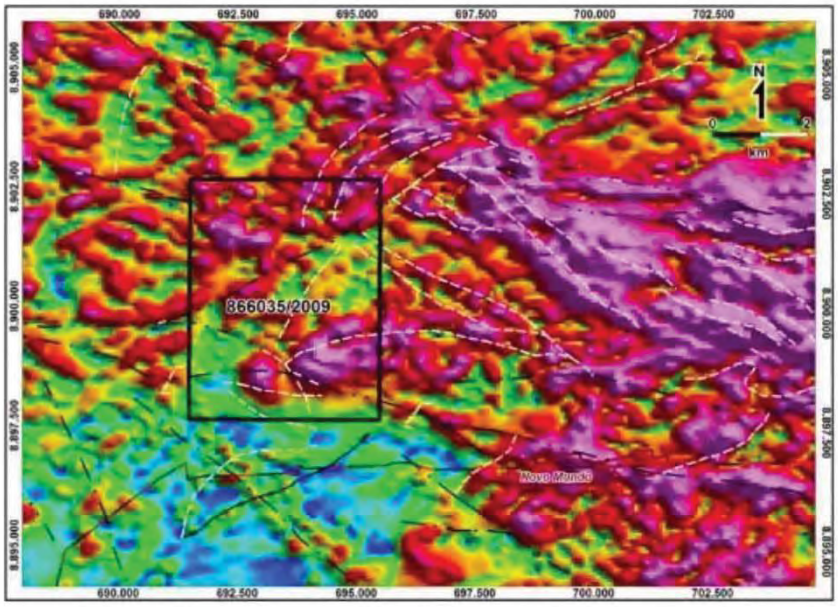

Figure 5-12: Magnetic interpretation – Total Horizontal gradient (Fugro/GMS -2012)

Based on the geophysical data obtained in the referred surveys and integrating with the geological and structural information, a geological-structural map was generated (Figure 5-13), highlighting the magnetic behaviour of the rocks. In this way it was possible to subdivide the Xingu Complex according to the magnetic response, with a range from weak to strongly magnetic.

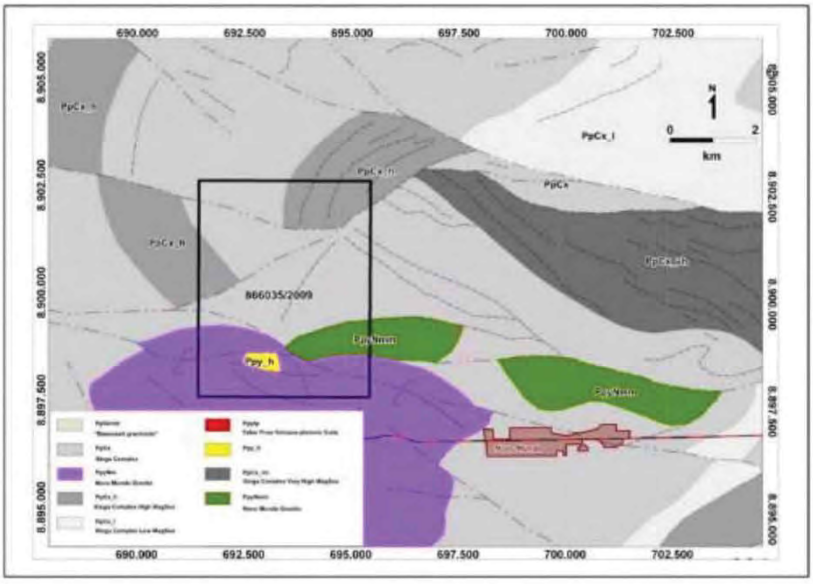

Figure 5-13: Geological map based on geophysical data prepared by Fugro (2013).

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5.2.4. Nexa Geophysics

Nexa developed a ground magnetic survey of around 2,500 hectares involving the main potential area and 3 sections of 8.6-line km of deep IP and Audiomagnetotellurics (Figure 5-14).

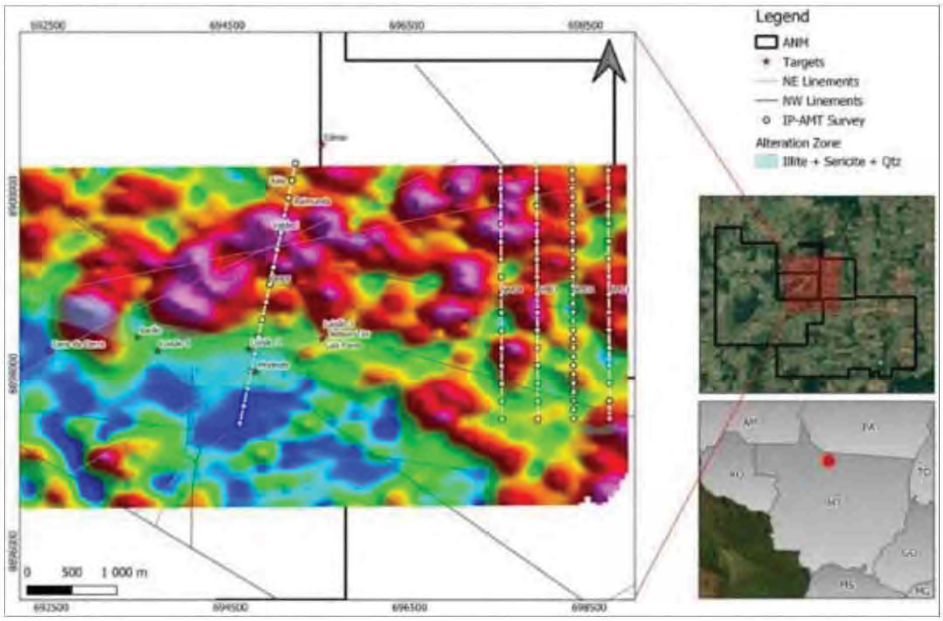

Figure 5-14: Central area with Analytical Signal Mag data from Nexa ground services and showing the main deep IP- AMT (Audiomagnetotellurics) planned lines

The interpretation of the ground magnetic data shows a strong NW-SE contact zone between the northern units of strong magnetism and less magnetics part of the Novo Mundo pluton in the south. In addition, it was noted that these strong EW structures intersect more subtle NE structures. Mapping shows the more phyllic alteration zone, potentially a vector for gold mineralisation, is positioned mostly at the southern border of the magnetic high.

It is observed that the high potassic anomaly (Figure 5-11) coincides with the southern part of the main target area, as such this area appears to geophysical expression of a strongly altered granite stock.

Nexa performed a 3km long deep IP and AMT line NM5, NM3 and NM2, with the support of the Wellfield – Geomag. The lines had an NNE- SSW direction designed to cut the known WNW-ESE mineralized structures from south to north: Modesto, Luisão, Valdeci and Raimunda (Figure 5-14).

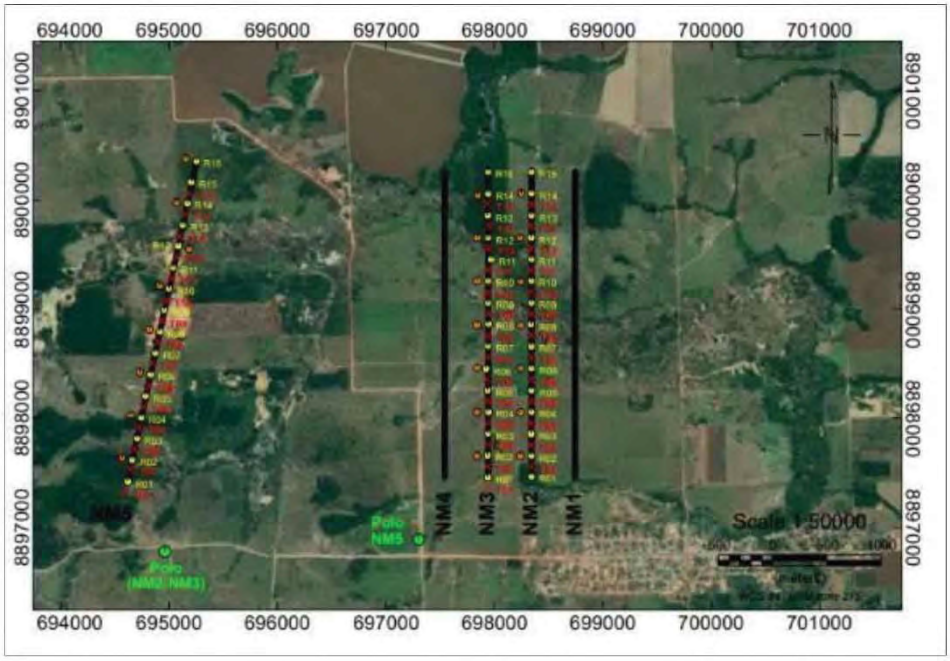

Figure 5-15: location of the executed IP- AMT profiles NM5, NM3 and NM2

The interpretation of the NM5 line indicates a major deep SSW dipping low resistivity structure mainly between stations 1000 and 1500 m NE (Figure 5-16 and Figure 5-17).

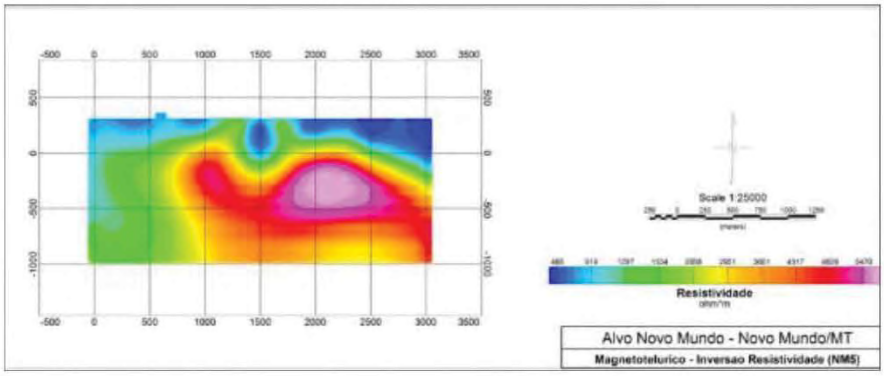

Figure 5-16: Inversion of resistivity - IP Pseudo section line NM5

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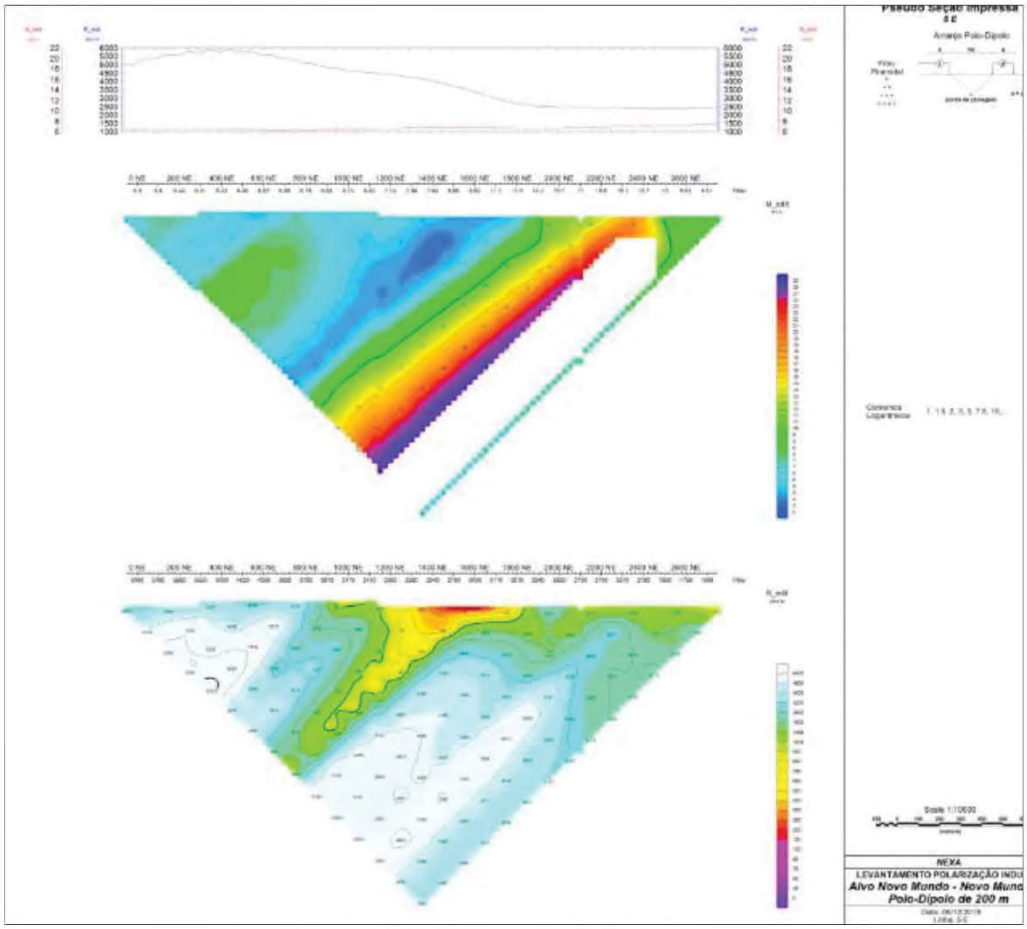

Figure 5-17: IP Pseudo section resistivity line NM5

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5.3. Geochemistry

5.3.1. RTZ Geochemistry

RTZ performed a rock sampling survey with around 100 samples collected that were analysed for Au, As, Cu, Pb, Zn and Mo. The results can be seen in Figure 5-18 with some high gold grades related to the strongly hydrothermally altered granite. This granite had abundant greenish sericite and high content of disseminated pyrite. A geochemical correlation between Au-Cu-Mo was observed in the data with.

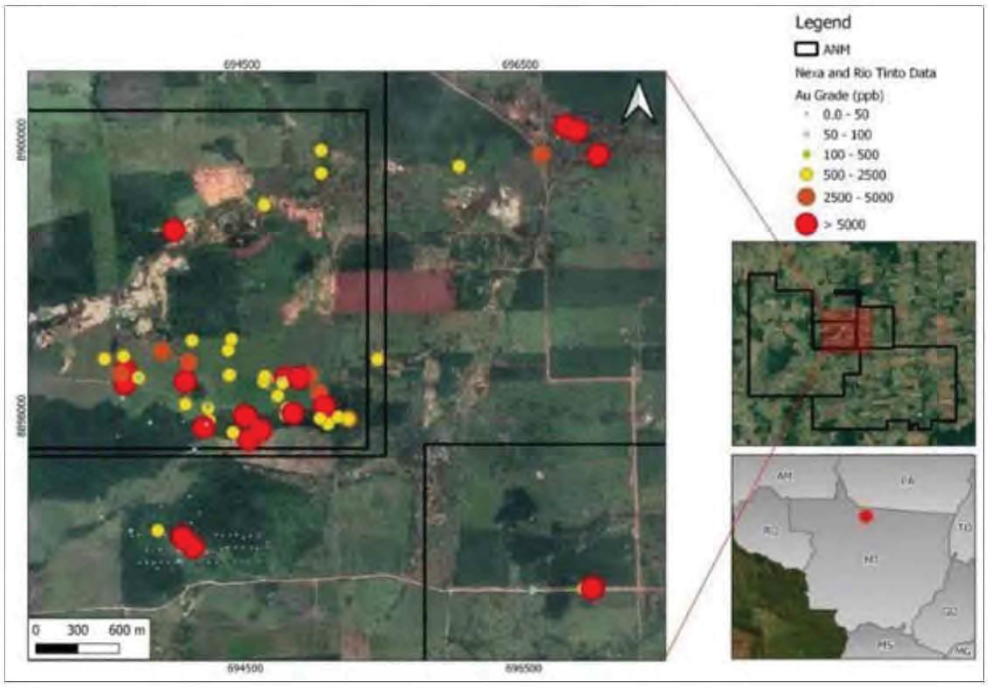

Figure 5-18: Rock sampling programme from RTZ and Nexa

RTZ also carried out a soil geochemistry grid over the southern portion of the permit area with a sample spacing of 200x50m. The widely spaced sampling identified several anomalous zones and. More detailed follow up survey was completed. This survey reduced the spacing between lines to 100m. In total 404 samples were collected and analysed for gold by fire assay, plus As, Cu, Pb, Zn and Mo by ICP. These analyses were performed by the Laboratory Bondar Clegg, in Luziânia, Goias State.

The anomalous zones indicated a more EW trend for the Luisão/Claudio target and a more NW-SE trend for the Modesto target.

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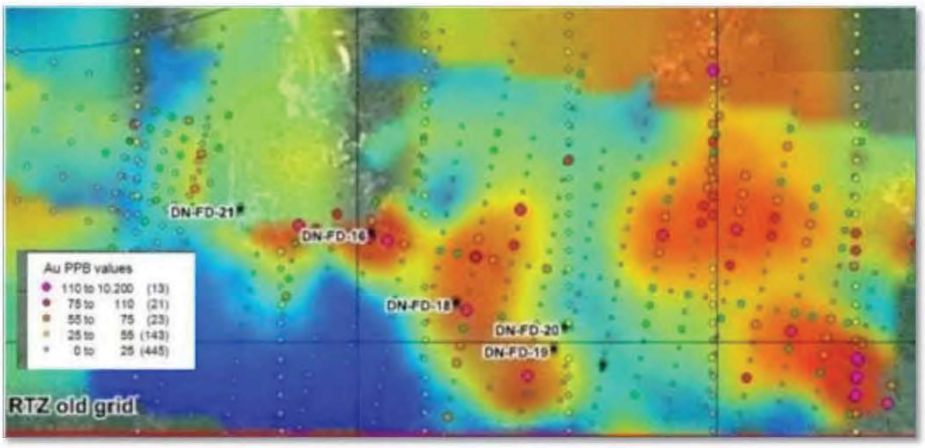

Figure 5-19: Soil geochemistry and anomalous zone of RTZ grid

5.3.2. GMS Geochemistry

During field reconnaissance carried out by GMS, 35 chip rock samples were collected along with 65 channel samples on outcrops, boulders and on the walls of mining pits. These were analysed for gold by Acme.

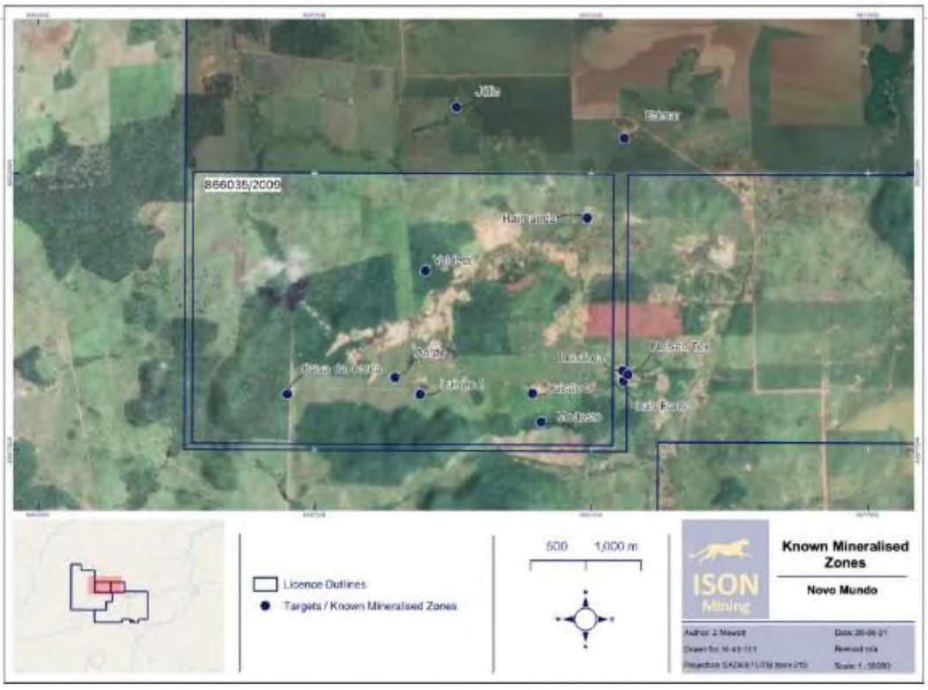

Figure 5-20: Location of the rock chip and channel samples

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GMS recovered the raw data from RTZ´s soil survey and after georeferencing, reinterpreted it. The soil grid carried out by GMS covered approximately 1,600 ha, about 80% of the exploration right number 866.035/2009. Two chemical analysis methodologies were adopted, one for gold and 52 elements by aqua regia digest and ICP analysis and the other, only for Au by fire assay atomic absorption.

Figure 5-21: - GMS geochemistry soil grid

The integration and interpretation of the analytical results of the samples collected by RTZ and GMS allowed the identification of several gold anomalies within the area, which can be viewed in Figure 5-22.

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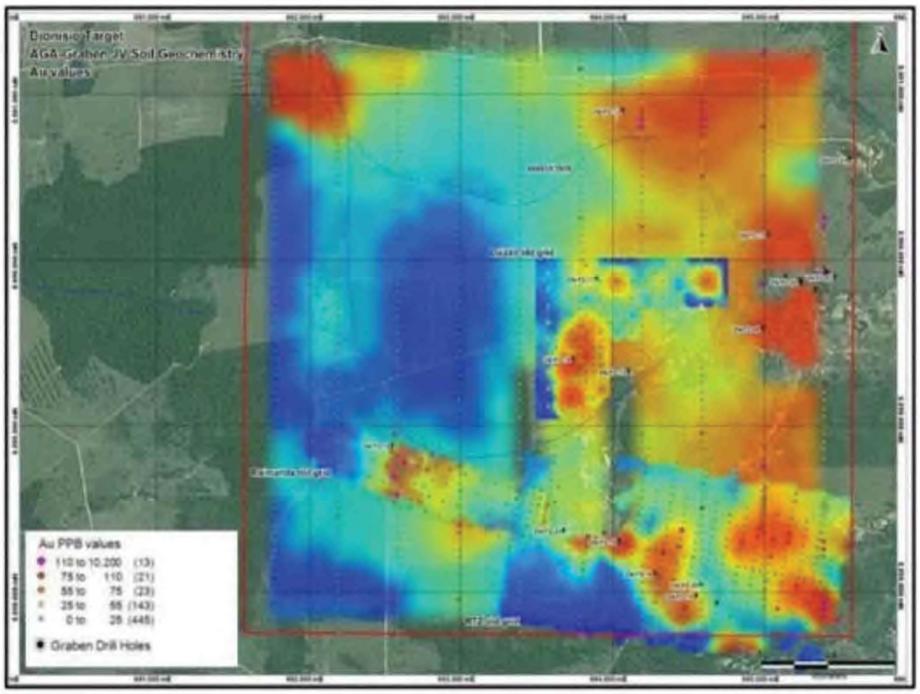

Figure 5-22: Map of soil anomalies from GMS survey / RTZ survey

The results for gold returned a combination of oriented anomalies coinciding with the hydrothermal zones. Anomalies were generated from by gridding the geochemical values. In the southern portion of the area, several anomalies for Au aligned to the Luisão trend, where the main mapped historical workings are concentrated. Throughout this structure, which has more than 3.5km of strike, several samples had Au contents greater than 100 ppb and with a maximum of 959 ppb were obtained.

Another four very promising anomalous were found in the northern part of the grid, related probably to the vein zones. Due the larger grid of the survey it is not possible to define a consistent trend, although the veins here have the same N70-W direction.

Locally Au levels higher than 100 ppb were obtained, with two exceptionally high values greater than 2 g/t. One in the Raimunda/Valdeci region and the other in an area without informal workings, called Anomalia da Cerca. Virtually all the defined anomalies are open to the East and West.

5.3.3. Nexa Geochemistry

Nexa developed a regional soil geochemistry campaign with N-S lines of around each 500m with samples collected at intervals of 50. The survey showed some significant anomalies (Figure 5-23). The interpretation of the geochemical data, with anomalies around the main central area indicates a possible major structure as the source of the gold mineralization, probably associated with the main tectonic lineaments observed in the geophysical data.

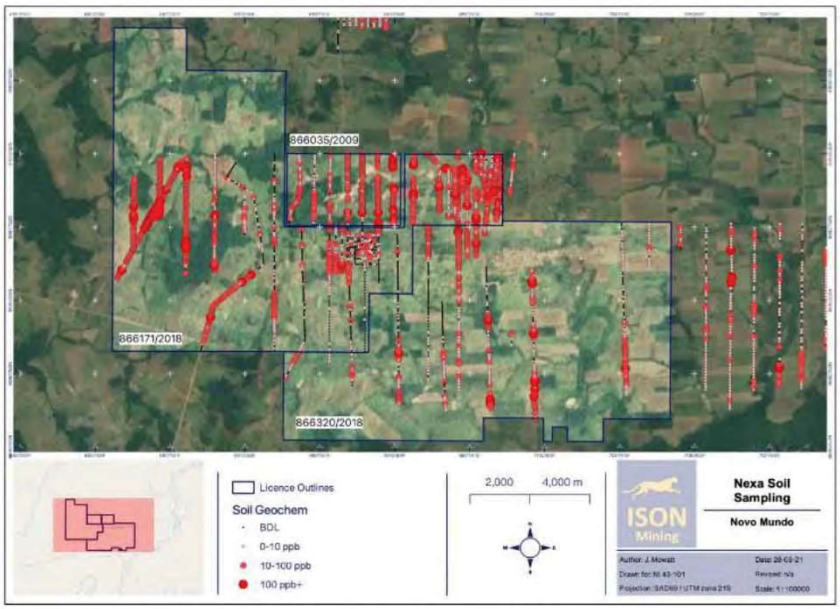

Figure 5-23: Reginal soil geochemistry executed by Nexa

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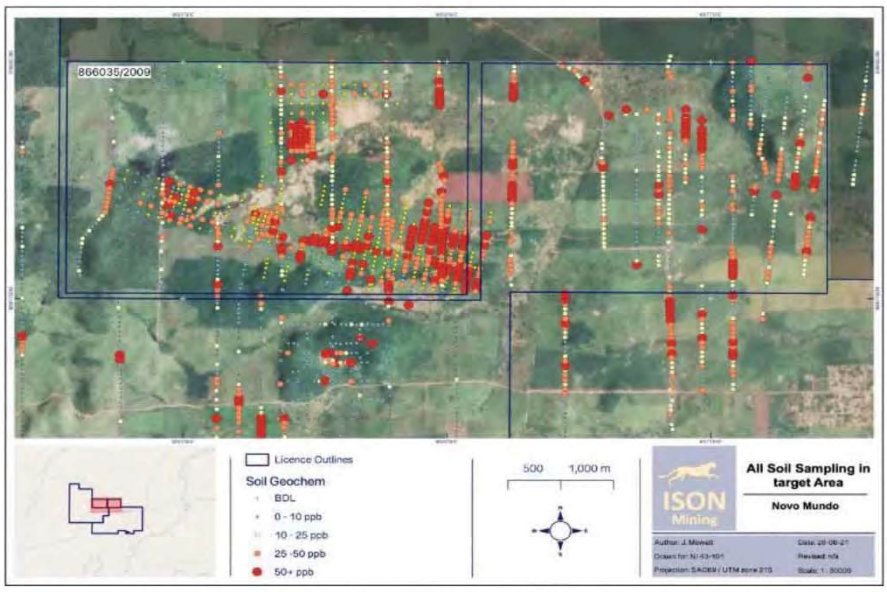

Figure 5-24: Detail of the central part of the Novo Mundo Project with soil geochemistry (RTZ-GMS-NEXA) showing the strong NW – SE trends as well as some NE-SW and EW trends.

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5.4. Historical Drilling

The following section details the historic drilling RJK, RTZ and GMS executed over the past two decades. According to the data room provided to Resouro by Nexa, a total of 43 diamond drill holes for 5501.56m have been completed on the property. A shallow air core campaign of 100 holes totalling 2349.6m were also completed. The following two tables include a summary of the drilling completed on the property and the respective collar information for the all the drilling done.

Company	Diamond Drilling (metres)	Number of Holes
RJK	717.86 m	7 holes
RTZ	1086.35 m	10 holes
GMS	3698.35 m	26 holes
Total	5501.56	43 holes
Company	Air Core Drilling (metres)	Number of Holes
GSM	2349.60 m	100

Table 5.4 Summary of the drilling by company

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Company	Hole ID	Target	Hole Type	x	y	z	depth	azimuth	dip
RJK	RJK-01	Luisão	DD	693740	8898244	322	90.39	0	-45
RJK	RJK-02	Luisao	DD	693740	8898194	325	162	0	-45
RJK	RJK-03	Luisao	DD	693705	8898216	324	90	0	-45
RJK	RJK-05	Valdeci	DD	695240	8899952	305	130.62	180	-60
RJK	RJK-09	Luisao	DD	693770	8898319	320	91	160	-60
RJK	RJK-10	Luisao	DD	693710	8898344	318	67	180	-60
RJK	RJK-11	Edmar	DD	695540	8900694	304	86.85	180	-50
RTZ	FNV001	Luisao	DD	695110	8898059	314.83	139.65	190	-55
RTZ	FNV002	Luisao	DD	695094	8897966	315.63	90.1	10	-45
RTZ	FNV003	Luisao	DD	695157	8898008	315.49	88.5	10	-60
RTZ	FNV004	Luisao	DD	695404	8897997	301	130.5	190	-60
RTZ	FNV005	Luisao	DD	695307	8898026	302.41	115.5	190	-60
RTZ	FNV006	Luisao	DD	695162	8898055	309.2	56.55	190	-60
RTZ	FNV007	Luisao	DD	695209	8898047	305.01	76.6	190	-55
RTZ	FNV008	Luisao	DD	694839	8898249	318.81	150	10	-60
RTZ	FNV009	Luisao	DD	694028	8898255	319.07	123.2	10	-60
RTZ	FNV010	Luisao	DD	694321	8898188	317.9	115.75	10	-50
GMS	DN-FD-01	Edmar	DD	695558	8900607	310	178.6	40	-60
GMS	DN-FD-02	Raimunda	DD	695231	8899872	295	139.15	40	-60
GMS	DN-FD-03	Raimunda	DD	695238	8899861	300	109.75	220	-60
GMS	DN-FD-04	Raimunda	DD	695138	8899899	299	152.25	35	-60
GMS	DN-FD-05	Raimunda	DD	695334	8899821	294	160.6	40	-60
GMS	DN-FD-06	Raimunda	DD	695406	8899925	293	154.3	15	-60
GMS	DN-FD-07	Raimunda	DD	695462	8899898	292	156.65	35	-60
GMS	DN-FD-08	Edmar	DD	695451	8900606	310	157.95	15	-60
GMS	DN-FD-13	Edmar	DD	694984	8899588	316	116.15	10	-60
GMS	DN-FD-09	Valdeci	DD	694869	8899590	295	151.4	350	-60
GMS	DN-FD-10	Valdeci	DD	695025	8900155	311	128.6	360	-60
GMS	DN-FD-11	Júlio	DD	694102	8899326	304	149.3	205	-60
GMS	DN-FD-12	Valdeci	DD	694064	8900903	302	186.7	10	-50
GMS	DN-FD-14	Valdeci	DD	693738	8899403	321	147.3	15	-52
GMS	DN-FD-15	Luisao	DD	692549	8898881	313	96.8	185	-59
GMS	DN-FD-16	Luisao	DD	694042	8898299	320	103.5	180	-60
GMS	DN-FD-17	Júlio	DD	693894	8899886	325	128.85	180	-60
GMS	DN-FD-18	Luisao	DD	694277	8898107	326	137.1	170	-60
GMS	DN-FD-19	Luisao	DD	694547	8897978	349	115.35	150	-60
GMS	DN-FD-20	Luisao	DD	694577	8898038	340	151.1	190	-60
GMS	DN-FD-21	Luisao	DD	693675	8898366	322	168.95	190	-60
GMS	DN-FD-22	Luisao	DD	694685	8897934	323	139.35	190	-62
GMS	DN-DD-001	Luisao	DD	694038	8898336	322	154.04	180	-60
GMS	DN-DD-002	Luisao	DD	693752	8898364	315	113.15	180	-60
GMS	DN-DD-003	Luisao	DD	693894	8898336	318	140.82	180	-60
GMS	DN-DD-004	Luisao	DD	693752	8898241	315	160.64	0	-60
GMS	DN-AC-001		AC	695078	8900704	310	35	0	-90
GMS	DN-AC-002		AC	695080	8900604	316	34	0	-90
GMS	DN-AC-003		AC	695089	8900508	318	30	0	-90

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Company	Hole ID	Target	Hole Type	x	y	z	depth	azimuth	dip
GMS	DN-AC-004		AC	695094	8900404	311	19	0	-90
GMS	DN-AC-005		AC	695100	8900307	306	19	0	-90
GMS	DN-AC-006		AC	695103	8900221	307	16	0	-90
GMS	DN-AC-007		AC	695107	8900114	303	22	0	-90
GMS	DN-AC-008		AC	695103	8900009	297	19	0	-90
GMS	DN-AC-009		AC	695109	8899914	297	23	0	-90
GMS	DN-AC-010		AC	694602	8901068	314	19	0	-90
GMS	DN-AC-011		AC	694592	8900962	320	23	0	-90
GMS	DN-AC-012		AC	694602	8900862	322	21	0	-90
GMS	DN-AC-013		AC	694597	8900761	321	27	0	-90
GMS	DN-AC-014		AC	694599	8900659	320	26	0	-90
GMS	DN-AC-015		AC	694605	8900560	317	30	0	-90
GMS	DN-AC-016		AC	694099	8901100	331	14	0	-90
GMS	DN-AC-017		AC	694097	8901007	321	18	0	-90
GMS	DN-AC-018		AC	694097	8900928	313	16	0	-90
GMS	DN-AC-019		AC	694150	8900755	308	20	0	-90
GMS	DN-AC-020		AC	694095	8900684	310	35	0	-90
GMS	DN-AC-021		AC	694098	8900607	324	34	0	-90
GMS	DN-AC-022		AC	694099	8900506	324	19	0	-90
GMS	DN-AC-023		AC	694099	8900410	338	34	0	-90
GMS	DN-AC-024		AC	694911	8898829	311	35	0	-90
GMS	DN-AC-025		AC	694913	8898911	316	39	0	-90
GMS	DN-AC-026		AC	694914	8898712	325	24	0	-90
GMS	DN-AC-027		AC	692545	8898979	247	26	0	-90
GMS	DN-AC-028		AC	692555	8898891	332	25	0	-90
GMS	DN-AC-029		AC	692547	8898795	335	7	0	-90
GMS	DN-AC-030		AC	692547	8898695	322	4	0	-90
GMS	DN-AC-031		AC	692546	8898597	314	5	0	-90
GMS	DN-AC-032		AC	692542	8898496	314	17	0	-90
GMS	DN-AC-033		AC	693501	8898290	320	14	0	-90
GMS	DN-AC-034		AC	693608	8898277	330	23	0	-90
GMS	DN-AC-035		AC	693703	8898254	332	21	0	-90
GMS	DN-AC-036		AC	693793	8898237	320	24	0	-90
GMS	DN-AC-037		AC	695027	8901085	314	56	0	-90
GMS	DN-AC-038		AC	695036	8900989	325	57	0	-90
GMS	DN-AC-039		AC	695059	8900883	330	35	0	-90
GMS	DN-AC-040		AC	695039	8900791	323	49	0	-90
GMS	DN-AC-041		AC	694832	8900797	324	44	0	-90
GMS	DN-AC-042		AC	694831	8900885	318	25	0	-90
GMS	DN-AC-043		AC	694862	8900702	317	59	0	-90
GMS	DN-AC-044		AC	694870	8900603	313	41	0	-90
GMS	DN-AC-045		AC	694857	8900513	312	41	0	-90
GMS	DN-AC-046		AC	695098	8901204	318	61	0	-90
GMS	DN-AC-047		AC	695099	8901300	317	35	0	-90
GMS	DN-AC-048		AC	693318	8898665	308	20	0	-90
GMS	DN-AC-049		AC	693417	8898659	308	22	0	-90

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Company	Hole ID	Target	Hole Type	x	y	z	depth	azimuth	dip
GMS	DN-AC-050		AC	693574	8898827	303	21	0	-90
GMS	DN-AC-051		AC	693644	8898839	300	18.6	0	-90
GMS	DN-AC-052		AC	693645	8898737	302	25	0	-90
GMS	DN-AC-053		AC	693626	8898641	307	20	0	-90
GMS	DN-AC-054		AC	693581	8898598	311	26	0	-90
GMS	DN-AC-055		AC	693797	8898105	323	13	0	-90
GMS	DN-AC-056		AC	693771	8898496	309	28	0	-90
GMS	DN-AC-057		AC	693780	8898409	313	21	0	-90
GMS	DN-AC-058		AC	693831	8898352	316	20	0	-90
GMS	DN-AC-059		AC	693846	8898282	320	7	0	-90
GMS	DN-AC-060		AC	693886	8898250	323	28	0	-90
GMS	DN-AC-061		AC	693986	8898193	323	4	0	-90
GMS	DN-AC-062		AC	694031	8898255	329	26	0	-90
GMS	DN-AC-063		AC	693988	8898440	322	12	0	-90
GMS	DN-AC-064		AC	693507	8898604	311	29	0	-90
GMS	DN-AC-065		AC	693467	8898491	313	20	0	-90
GMS	DN-AC-066		AC	693471	8898465	316	26	0	-90
GMS	DN-AC-067		AC	693469	8898523	316	20	0	-90
GMS	DN-AC-068		AC	694692	8898361	339	27	0	-90
GMS	DN-AC-069		AC	694688	8898288	342	27	0	-90
GMS	DN-AC-070		AC	694730	8898315	312	5	0	-90
GMS	DN-AC-071		AC	694805	8898126	328	20	0	-90
GMS	DN-AC-072		AC	694921	8898112	328	15	0	-90
GMS	DN-AC-073		AC	694998	8898113	328	15	0	-90
GMS	DN-AC-074		AC	694920	8898208	331	19	0	-90
GMS	DN-AC-075		AC	695144	8898114	328	15	0	-90
GMS	DN-AC-076		AC	695144	8898175	328	19	0	-90
GMS	DN-AC-077		AC	695128	8898240	331	19	0	-90
GMS	DN-AC-078		AC	695140	8898290	327	19	0	-90
GMS	DN-AC-079		AC	695140	8898337	325	23	0	-90
GMS	DN-AC-080		AC	694926	8898597	323	29	0	-90
GMS	DN-AC-081		AC	694916	8898511	316	24	0	-90
GMS	DN-AC-082		AC	694915	8898420	320	34	0	-90
GMS	DN-AC-083		AC	694272	8898584	314	20	0	-90
GMS	DN-AC-084		AC	694175	8898587	309	18	0	-90
GMS	DN-AC-085		AC	694095	8898587	312	23	0	-90
GMS	DN-AC-086		AC	693900	8898470	321	35	0	-90
GMS	DN-AC-087		AC	694395	8897796	318	23	0	-90
GMS	DN-AC-088		AC	694395	8898237	329	12	0	-90
GMS	DN-AC-089		AC	694400	8898109	335	4	0	-90
GMS	DN-AC-090		AC	694398	8898422	328	4	0	-90
GMS	DN-AC-091		AC	694249	8898352	310	17	0	-90
GMS	DN-AC-092		AC	694169	8898370	305	11	0	-90
GMS	DN-AC-093		AC	694158	8898477	308	10	0	-90
GMS	DN-AC-094		AC	694702	8898452	326	9	0	-90
GMS	DN-AC-095		AC	695146	8898590	323	25	0	-90

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Company	Hole ID	Target	Hole Type	x	y	z	depth	azimuth	dip
GMS	DN-AC-096		AC	695116	8898460	322	24	0	-90
GMS	DN-AC-097		AC	693989	8898742	311	33	0	-90
GMS	DN-AC-098		AC	693910	8898774	306	13	0	-90
GMS	DN-AC-099		AC	694404	8898323	329	11	0	-90
GMS	DN-AC-100		AC	694639	8898086	343	21	0	-90

Table 5.4.1: Collar information for all drilling completed to date at the Novo Mundo Project

5.4.1. Historical Diamond Drilling

The first company to develop a diamond drilling campaign was RJK, aiming to test the results of the IP geophysical surveys completed pre-2000. The drilling was designed to investigate several weak to high resistivity and chargeability zones that correlated with outcropping sulphides. The campaign totalled 717.86m from 7 holes, however, no drill core of the RJK campaign was available for the Author to review.

The second campaign led by RTZ had the objective to investigate the potential down dip continuity of the disseminated gold sulphide zone of Luisão/Claudio areas (including Modesto) that had been previously worked by the informal miners. This campaign consisted of 1,086.35m across 10 holes. Six drill holes (FNV-01 to FNV-06) focused on the Modesto part of the trend whilst the remaining four holes aimed to extend the strike of the system delineated by RJK at the Luisão area (FNV-07 to FNV-10). The drill core of RTZ campaign is available in the core shed.

Between 2011 and 2013, GSM undertook the most recent diamond drilling campaign for a total of 3,698.35 m from 26 holes.

All holes were started in HQ diameter and reduced to NQ after entering the fresh rock. Sampling was carried out using ½ of the core and a total of 2,010 samples were collected. All samples were all analysed for Au by fire assay.

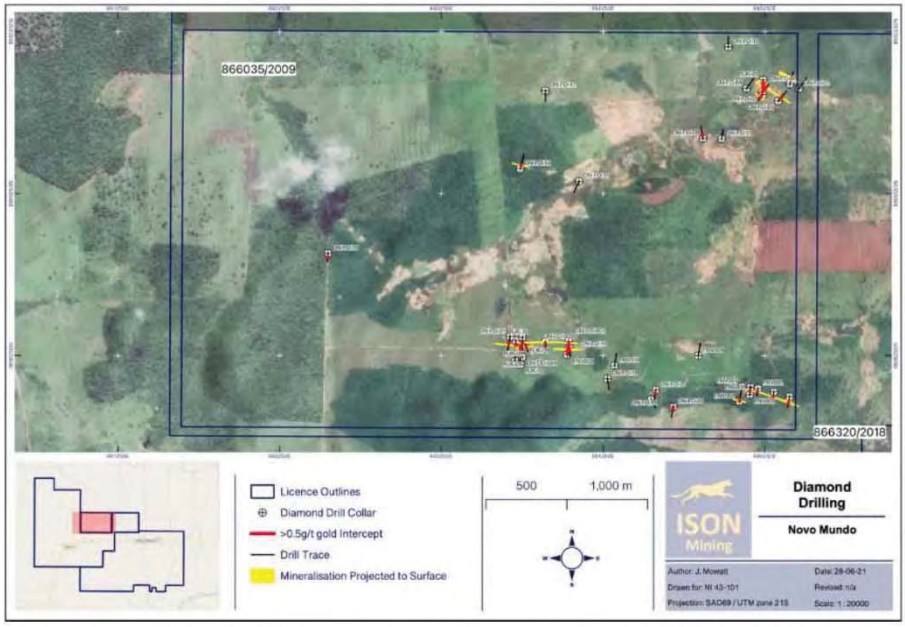

Figure 5-25: Map showing the diamond drilling done to date.

The photo in Figure 5-26 is from the drilling operation of hole FD-DN 06 and an example of how the holes were identified in the field after completion (Hole FD-DN 02).

Figure 5-26: Diamond drilling operation by GMS – hole FD-DN 06 – area Raimunda

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Figure 5-27: Example of a preserved drill collar from the GMS campaign

Most of the drill collars from the previous drill campaigns have been destroyed, however the Author was able to locate a preserved example on the site visit and confirm the recorded collar location was correct. Figure 5-27 shows a preserved drill collar.

Figure 5-28: Core shed from NEXA with Novo Mundo core boxes at Guaranta do Norte office

The procedures performed by GMS following the receipt of the core boxes from the drill rig were as follows:

A) the boxes were placed on a core bench and information provided on the identification plates were checked;

B) the drill core was orientated, and a longitudinal marking was made with coloured pens or white chalk;

C) drill core description: consisted of the description of each lithological interval, including the depth, colour, degree of weathering, texture, hydrothermal alteration, sulphide and fracture

degree of the rock (**RQD**). This information was transferred to a digital log. In this step, samples were also marked and identified for intervals of interest;

D) core was digitally photographed with a consistent orientation; and

E) sampling: the boxes containing demarcated samples were cut longitudinally with a diamond core cutting saw to obtain two equal parts. Then, the box returns to the bench where the left side of the core was removed to compose the sample. This portion is packed in a plastic bag with the identification and sent to the laboratory. The other half of the testimony is filed in the box in its original position.

In the Author's opinion, GMS's sampling method and approach were consistent with current industry best practices. There is a low risk factor associated with GMS´s sampling.

5.4.2. Raimunda Trend Vein Structures

North of the Luisão trend, there are several discovered mineralised structures that were intersected in the drilling. These are named Valdecy, Julio, Raimunda and Edmar and are narrow epithermal veins ranging from 1 to 5m in width striking NW-SE and dipping sub-vertically. The known extents of these veins are between 100 and 200m and in some cases the oxidised upper most surface has been partially exploited by informal miners.

Figure 5-29: The known veins structures of Raimundo, Edmar, Valdeci and Julio

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Campaign	Hole ID	Mineralized Interval				including			
		From (m)	To (m)	Grade (g/t)	Extension (m)	Grade (g/t)	Extension (m)	From (m)	To (m)
RJK	RJK-05	33.04	34.57	2.56	1.53	5.08	2.29	58.89	61.18
		58.89	63.78	6.18	4.89	40.01	0.46	63.32	63.78
		82.44	85.5	1.4	3.06				
	RJK-11	58.51	58.93	4.68	0.42				
		67.77	68.75	2.98	0.98				
GMS	DN-FD-001	71.92	74	2.07	2.08				
	DN-FD-002	18	20.68	3.68	2.68	6.42	1.46	19.22	20.68
		33	34	2.56	1				
		77.4	80	2.69	2.6				
		90	92	0.81	2				
		98	99	1.4	1				
	DN-FD-003	28	34	0.34	6				
		45	46	7.18	1				
	DN-FD-005	59.8	61.85	10.48	2.05	23.9	0.85	61	61.85
	DN-FD-006	60	72	1.03	12	4.46	1	64	65
		84	90.9	5.88	6.9	42.6	0.9	90	90.9
	DN-FD-009	43	44	1.29	1				
	DN-FD-013	23.55	28	1.28	4.45				
	DN-FD-014	34.62	35.58	6.65	0.96				

Table 5.4.2: Positive drill holes intersections at the several vein structures along the Raimunda trend

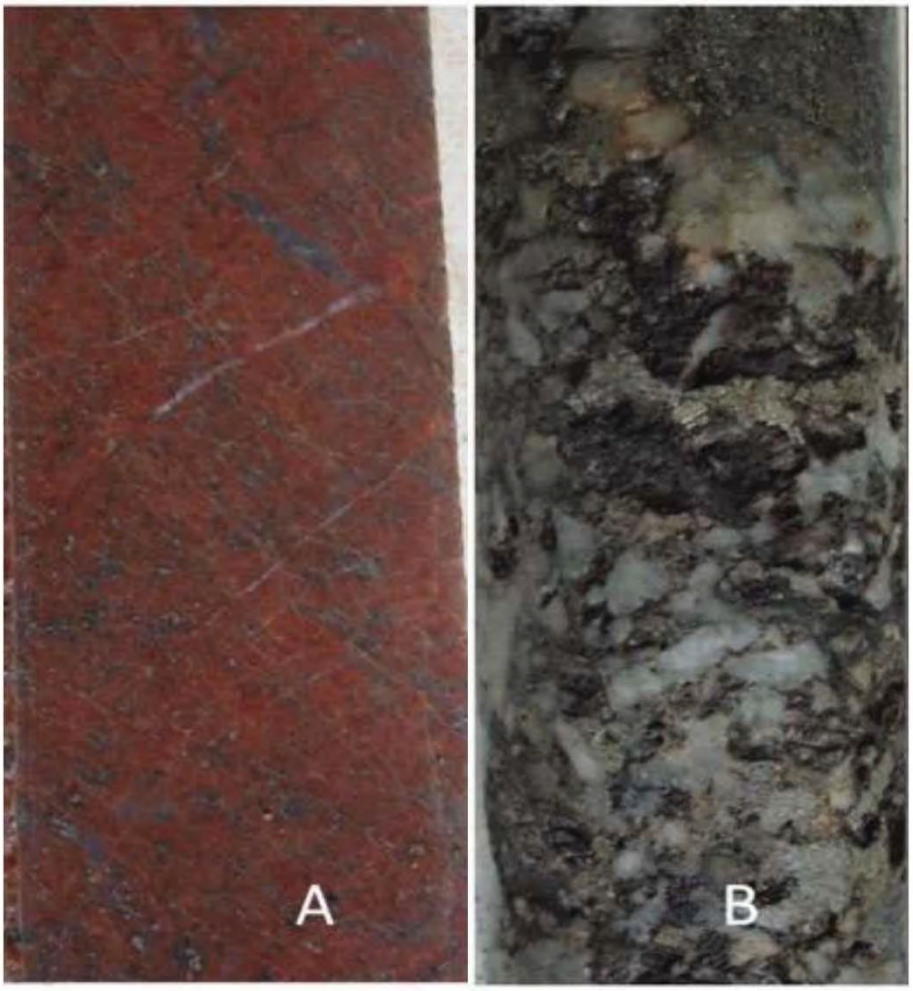

Figure 5-30: Photography of the ore zone at Raimunda vein structure from hole DN-FD-02 with (A) the typical reddish syeno-granite with some orientation and a late-stage fine sericite veining and (B) a vein with a primary comb structure (sub-euhedral crystals)

The typical vein morphology of the Raimunda trend is shown in the cross sections in Figure 5-31. The grade intersections and geological observations indicate the veins are part of a typical epithermal vein array. A strong phyllic alteration overprint is also observed, and a possible interpretation is that these veins are associated with a larger hydrothermal system that also has a structural control. Also, in the Raimunda region is the Valdeci vein set. Here some of the informal open pits show a very significant size, however of the 4 drill holes executed to test this part of the trend, only hole FD-DN-14, confirmed economic mineralization. All the detected mineralized structures remain open both laterally and at depth however in the Author's opinion, more understanding and complementary work is necessary to explore the real potential of the area.

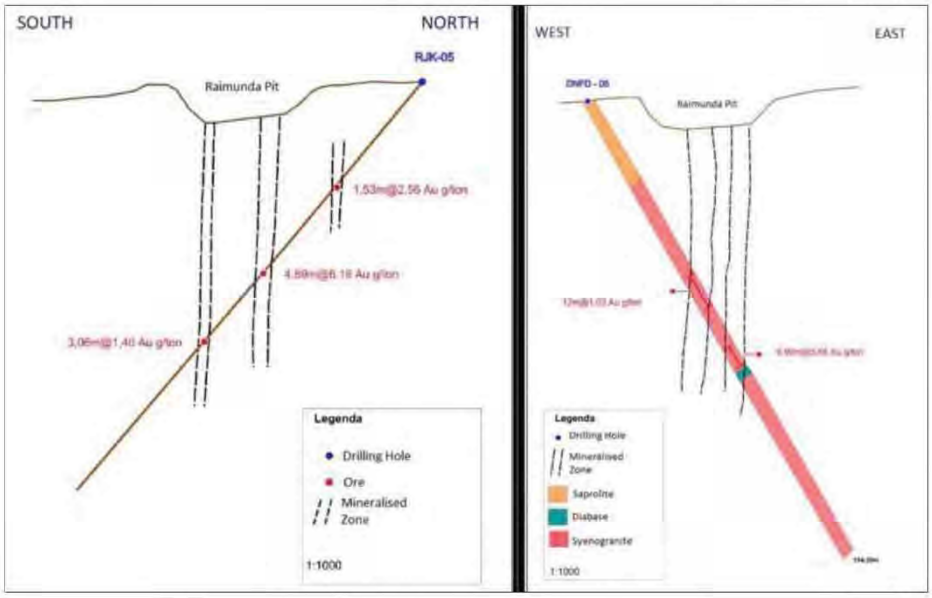

Figure 5-31: Typical section of Raimundo vein target

5.5. Historical Air Core Drilling

In 2015, a 100-hole air core programme was initiated by GMS as part of a more regional exploration effort within the license area. The programme used a Sandvik KL150 (2004) truck mounted RAB rig capable of drilling RC holes to 100m and AC holes to 150m. Powered by a cummings LTA10C325 – 325HP engine using 3m rod lengths. A support truck hosted the air compressor capable of 600CFM at 250PSI. The torque of the KL150 is 2000Nm at 170rpm and 4660Nm at 85rpm.

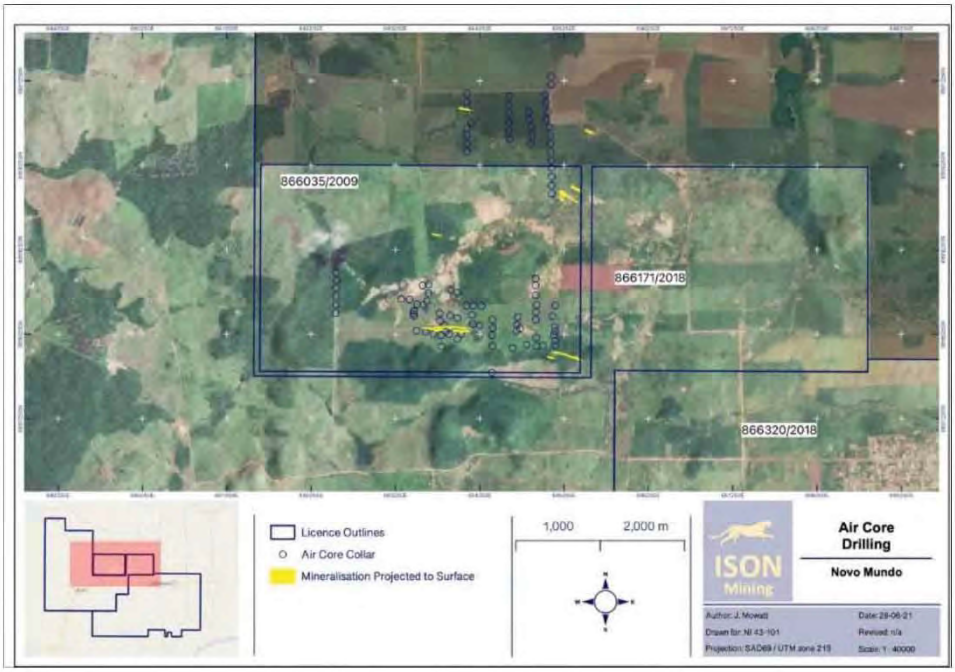

Figure 5-32: Map showing the air-core drilling locations

The holes were drilled until fresh rock was intersected with holes varying from 4m to 61m at an average of 23.50m. Issues were encountered such as a high-water table and difficulties in mobilising the rigs. Despite the issues, a total of 2349.6m were achieved. Sampling consisted of drill cuttings from each 3m rod length being directed into a cyclone and approximately 20kg of sample was collected in plastic bags. A sub-sample was passed through a riffle splitter and two 1.5kg samples were taken. One was sent for analysis whilst the other was archived. In addition to the 3m composites, a 1m sample was collected, washed, and then stored in a chip tray.

Figure 5-33: Left – the Sanvik KL150 AC drilling rock, Right – Cyclone used to collect the sample

Figure 5-34: Left – the riffle splitter used to collect sub sample, Right – the 1m chip trays used for archiving

The results of the air core drilling campaign are presented in the table below. Out of the 100 holes drilled, only 10 returned positive results. The drilling appears to have been poorly executed because the holes were oriented vertically and had a drill spacing of 50 – 100m, more than an order of magnitude greater than the typical width of the known veins.

Hole ID	Intervals			
	From	To	Grade	Length
	(m)	(m)	(g/t)	(m)
DN_AC_012	0	3	0.46	3
DN_AC_013	0	3	0.65	3
DN_AC_027	3	6	0.2	3
DN_AC_034	6	9	0.35	3
DN_AC_043	18	21	0.14	3
DN_AC_065	0	6	0.11	6
DN_AC_070	3	6	0.36	3
DN_AC_077	6	9	0.23	3
DN_AC_081	12	18	0.71	6
DN_AC_085	21	24	0.29	3

Table 5.5: Positive drill holes intersections along the Raimunda trend

5.5.1. Historical Drilling results targeting the Luisão/Claudio Trend

The Luisão/Claudio target is related to a 2-3 km long E-W trend that appears open to the west based on the Author's interpretation of soil geochemistry and IP anomalies. The trend is coincident with two small open pits developed by informal miners during recent years, where the disseminated gold mineralization is associated with strong sericite-muscovite and pyrite dissemination with rare quartz veining.

Along the Luisão -Modesto trend the exploratory drilling intercepted mineralization in 17 diamond drill holes (Figure 5-35 and Figure 5-36). The positive intersections range from 1m to 26 m wide mineralized zones and an average grade of 2.5 g Au/t.

The diamond drilling completed has been exploratory in nature with wide drill spacings of approximately 250m. Only the subarea called Modesto in the SE end of this target, were the drill spacings closer. In this area, RTZ had a grid 50x50m of diamond drilling with six holes - the veins in this area appear subvertical with a more NW strike (Figure 5-36).

The mineralization in general indicates a subvertical dip, but the Author notes that available data is sparse and a better and more detailed understanding will be necessary.

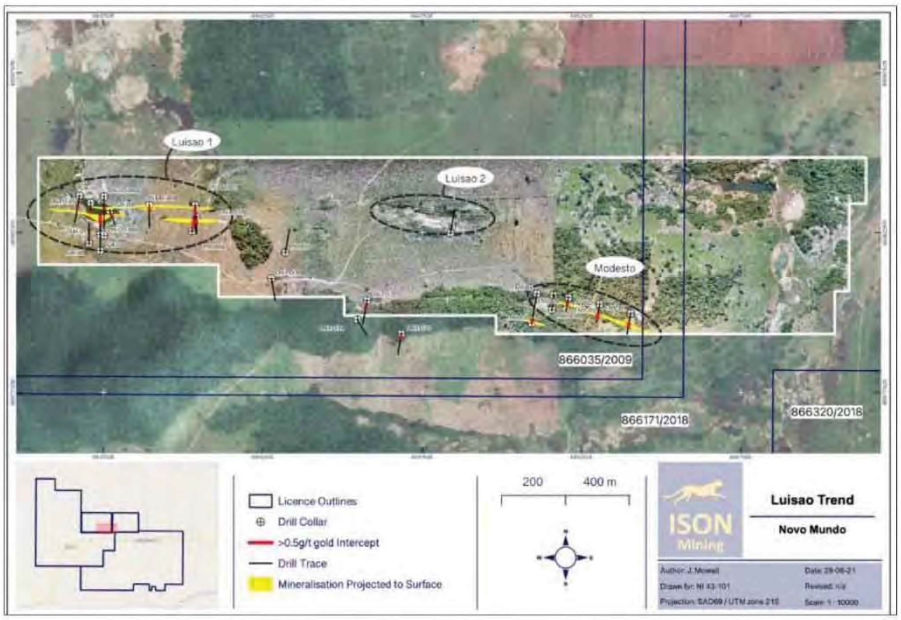

Figure 5-35: Luisão/Modesto target with main detected mineralization (in red)

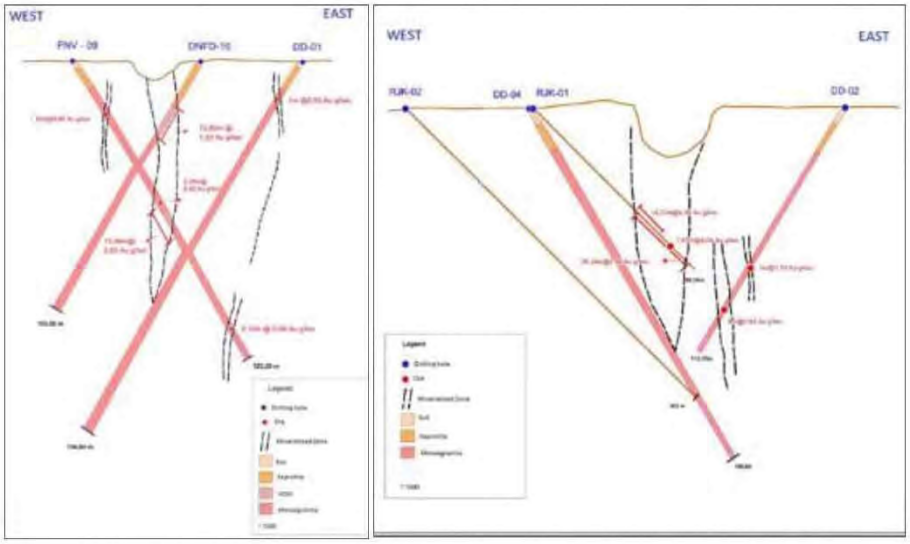

Figure 5-36:Geological sections of drill holes at the Luisão disseminated mineralization

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Campaign	Hole ID	Mineralized Interval				including			
		From (m)	To (m)	Grade (g/t)	Extension (m)	Grade (g/t)	Extension (m)	From (m)	To (m)
RJK	RJK-01	57.21	83.45	2.94	26.24	4.39	14.23	57.21	71.44
						4.02	1.82	76.49	78.32
	RJK-09	30.77	31.55	2.07	0.78				
	RJK-10	59.43	60.55	4.62	1.12				
RTZ	FNV-002	6.9	10.32	0.51	3.42				
	FNV-004	44.45	52.57	0.48	8.12				
		66.85	77.33	1.47	10.48	3.07	3.31	69.95	73.26
	FNV-005	65.45	67	5.71	1.55	10.41	0.8	65.45	66.25
	FNV-006	43.2	44.7	0.58	1.5				
	FNV-007	36.2	38.8	1.77	2.6				
	FNV-009	21.9	23.25	0.86	1.35				
		55.88	57.36	1.21	1.48				
		64.08	69.34	6.82	5.26				
		111.35	113.45	0.66	2.1				
		19.05	31.65	1.53	12.6	2.16	5.65	26	31.65
GMS	DN-FD-016	42.65	44.5	0.65	1.85				
	DN-FD-020	76.5	77.5	2.14	1				
	DN-FD-021	24	31	3.15	7				
	DN-FD-022	17	18	0.93	1				
	FD-DD-001	74	75	1.1	1				
	FD-DD-002	90	98	0.62	8	2.05	1	90	91
	FD-DD-003	22	24	3.67	2				

Table 5-5-1 Positive drill holes intersections at the Luisão target

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6. GEOLOGICAL SETTING AND MINERALIZATION

6.1. Regional Geology

The Novo Mundo Project exists within the established gold mining district of the AFGP, Mato Grosso, also referred to as the Juruena Teles-Pires Gold Province. This province has a SE-NW elongate extent of over 500 km. It is situated in southernmost portion of the Amazonian Craton at the boundary between the geochronological domains of the Rio Negro-Juruena (1.8-1.55Ga) and the Tapajos-Parima (2.03-1.88 Ga) as described by Macambira et al (1999), Santos et al (2004) and Vasquez et al. (2008).

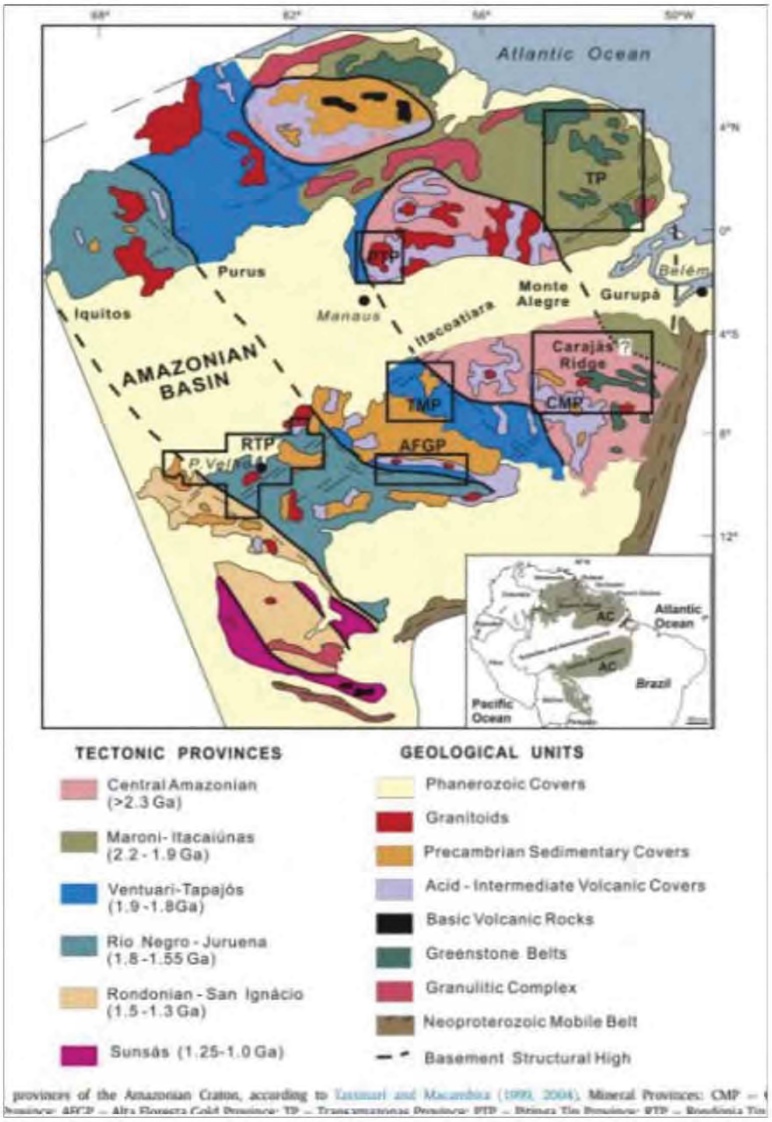

Figure 6-1: Location of the tectonic provinces of the Amazon craton according to the models of (A) Santos et al. (2006) and (B) Tassinari and Macambira (1999)

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These provinces are interpreted as the products of successive ocean-ocean accretion of juvenile crust that evolved by magmatic differentiation generating intermediate to felsic magmas. The AFGP is composed mainly of plutono-volcanic sequences generated in Paleo – to Mesoproterozoic volcanic arcs and basement units restricted to its central and northwest segments.

The basement is represented by two metamorphic complexes:

- Bacareí-Mogno: 2.24 Ga; (Pimentel, 2001), composed of pyroxene-rich orthoamphibolite, ortho- and paragneiss, banded iron formations, quartzite, metagabro, and metanorites; and
- Cuiú: 1992 ± 7 Ma; (Santos *et al.*, 2000), represented by tonalitic to granitic gneisses, migmatites, schists, banded iron formations, metaultramafic and metamafic rocks (Dardenne and Schobbenhaus, 2001); (Paes de Barros, 2007).

In the eastern sector of the province, the basement is crosscut by several oxidized, calc-alkaline, medium to high-K, meta- to peraluminous granites, such as Pe Quente, Novo Mundo, and Aragao granites, and the Flor da Mata suite, as well as volcanic sequences (Assis et al., 2014).

The plutonic-volcanic units have U-Pb crystallization ages varying from 1.97 Ga to 1.93 Ga. These suites are also cut by the 1.90-1.87 Ga Guaranta, Nhandu, and Matupa I-type granites, and by ca. 1.78-1.75 Ga post-collisional and A-type granites (e.g. Paranaíta and Peixoto granites, Colíder and Teles Pires suites). Except for the Flor da Mata suite, all other granites host vein-type to disseminated gold mineralization. All these units are overlain by ca. 1.37 Ga (Assis et al., 2014) clastic sedimentary rocks attributed to the Dardanelos Formation (Beneficente Group).

Crystallization ages (1.97 Ga to 1.75 Ga), Sm-Nd TDM ages (2.76 Ga to 2.15 Ga), and εNd(t) values from 7.62 to 3.09 for the plutono-volcanic units, suggest Archean to Paleoproterozoic magma sources within a juvenile arc with a small contribution of continental crust (Santos et al., 1997, 2000; Pimentel, 2001; J.P. Souza et al., 2005; Paes de Barros, 2007; Silva and Abram, (2008)).

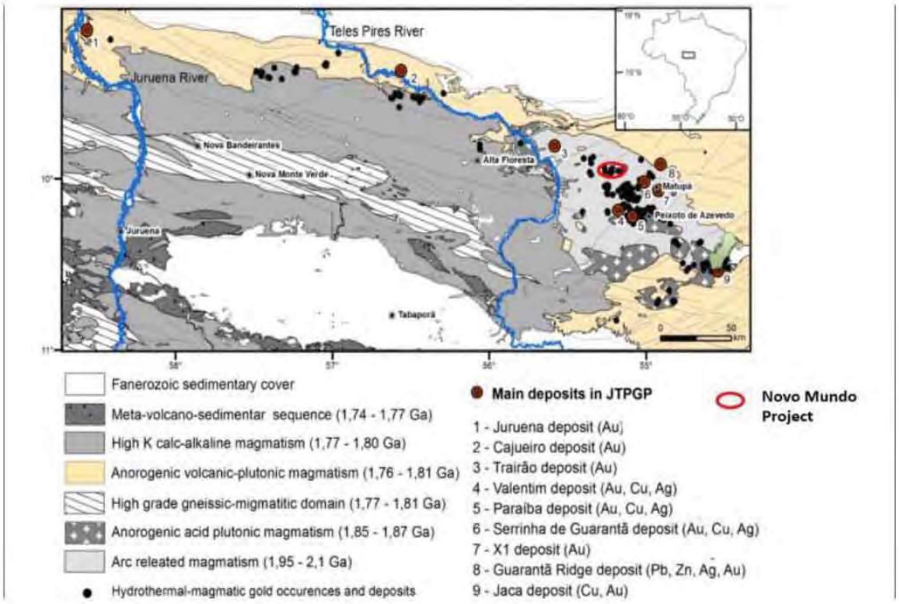

Figure 6-2: Geological map of the Juruena – Teles Pires Gold District - AFGP with the gold occurrences and main known deposits (FRANCISCO RIOS-28-05-2020)

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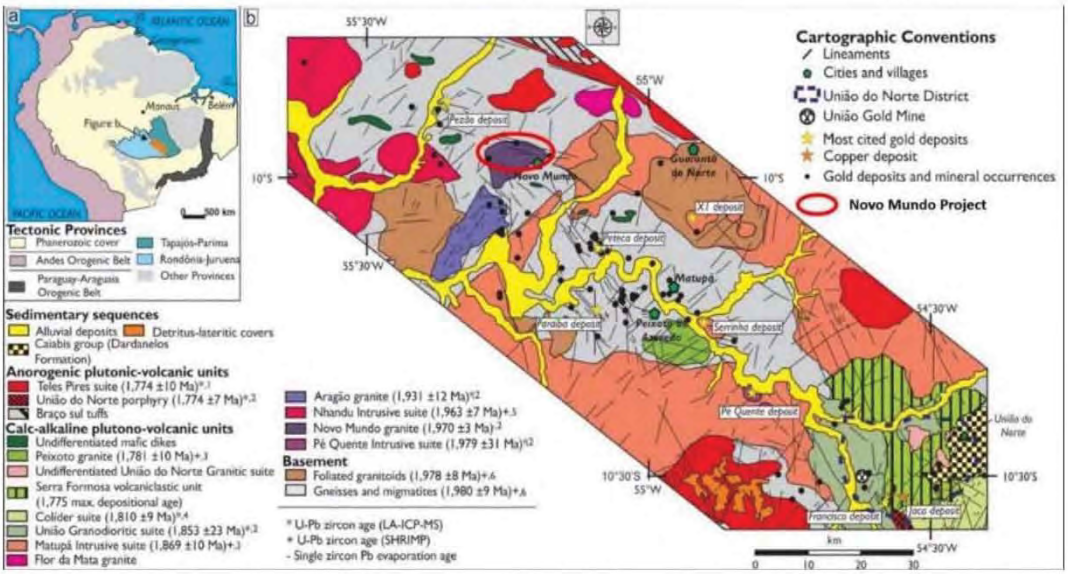

Figure 6-3: Geological map of AFGP eastern sector (Miguel Jr., 2011; Assis et al. 2017).1- Pinho et al. (2003); 2-Miguel Jr. (2011); 3- Silva et al. (2014); 4- Santos et al. (2019); 5 – Barros et al. (2015); 6 – Assis (2015). Modified from J. Mattos, 2018

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6.1.1. Gold-Copper Mineralization Of The Alta Floresta Gold Province

Most of the gold deposits and occurrences recognized in the AFGP are concentrated along a NW-SE-striking belt that extends over 150 km. Many of these gold occurrences and mineralised zones are in eastern portion of the belt, including the Novo Mundo occurrences. The style of mineralisation in the belt can be assigned to one or more of the following categories:

- Disseminated Gold (and copper):

  These deposits normally occur within muscovite/sericite quartz (chlorite) sulphide alteration zones that are enveloped by potassic and later regional propylitic alteration. The ore zones of these disseminated gold deposits contain abundant pyrite with variable concentrations of chalcopyrite and hematite. Gold usually occurs as small inclusions within pyrite, at its edges or as fracture infills.

- Structurally controlled Vein-type Au deposits (some similarity to orogenic veins):

  The Paraíba, Porteira and Peteca deposits are some known vein-type Au deposits where the gold mineralization is generally associated with banded quartz veins emplaced in sericite-quartz -biotite-carbonate mylonitic zones within NS-, NE- and EW-striking shear zones of subvertical dip. These mylonitic zones are in general enveloped by early potassic (with K-feldspar) alteration, and by later, and more distal propylitic alteration. The ore association in the veins consists predominantly of pyrite with significant amounts of chalcopyrite.

- Epithermal Vein Au/base metal:

  The Francisco, Bigode, Luiz and Ana gold narrow vein deposits (Assis, 2008, 2011) in the far east part of the AFGP are good examples. These Epithermal vein-type Au and base metal deposits are of intermediate to high sulfidation type, controlled regionally by a major NW- SE fault zones. The mineralization consists of sulphide-quartz veins, silicified zone and magnetite-quartz veins controlled by a system of NW/SE, EW and NE structures. The União do Norte, Luiz and Ana deposit are intruded in the União do Norte Granodiorite. The Francisco deposit is Pb rich and hosted by a volcaniclastic unit of uncertain age and shows a close spatial relationship with the União do Norte porphyry, dated at 1774 ± 7.5 Ma (LA-ICP-MS UePb zircon) and the fertile Jaca porphyry Cu- Mo deposit (Assis, et al 2014).

- Porphyry Stockwork of Cu-Au-Mo Mineralization:

  The known Cu-Mo porphyry deposits form a stockwork systems hosted in a volcaniclastic sequence and in porphyritic granodiorites.

- Alluvial and colluvial paleo-placer:

  Much of the garimpeiro workings targeted this style.

The 2017 discovery of a typical copper-gold mineralised porphyry at the Jaca prospect located approximately 70km to the SW of the Novo Mundo Porject caused a new stage of intense mineral exploration in the region. 3.5 million hectares of mineral rights were applied for, with international mining companies such as Codelco, Anglo American and Nexa Resources all acquiring large land holdings. Table 6-1-1 below summarize some information about major gold deposits known and in development in the region of the Novo Mundo Project:

Project	Owner	Estimated Resources	Situation	Source
Paraiba Mine	PAA Gold	1,374,000 ounces	Underground mine in operation	Simpósio Peixoto CPRM 19/07/2018 Vial Paraiba
Juruena	Meteoric Resource	387,000 ounces	In development; high grade	Meteoric ASX Release
União do Norte	Fides Mining	690,000 ounces	Open pit; in production	International Goldfields
X1 – Matupa Gold Project	Aura Gold	332,400 ounces	In development, open pit	Aura Minerals
Other known gold deposits are Peteca; Serrinha de Guarantã; Serrinha de Matupá; Porteira; Jaca (Cu, Mo); Luisão; Raimunda				

Table 6-1-1 Floresta – Juruena Gold Province (AFGP)

6.2. Local Project Geology

The dominant lithologies in the licence are the granites of the Novo Mundo suite. This suite is compartmentalised into the upper and lower units and represents an intrusive body in rocks of the Xingu Complex with dimensions of approximately 12km by 5km, elongated E-W. This orientation coincides with the direction of the main ductile shear zones and regional lineaments that affect the region of the Novo Mundo Project. The main facies of the Novo Mundo granites consist of an equigranular, leucocratic, non-magnetic syenogranite with an oriented fabric.

The elongated shape of this body and presence of a preferred matrix orientation suggests that its emplacement must have occurred with structural control, under a NW-SE dextral stress regime with a ductile-brittle character (Miguel Jr. 2011).

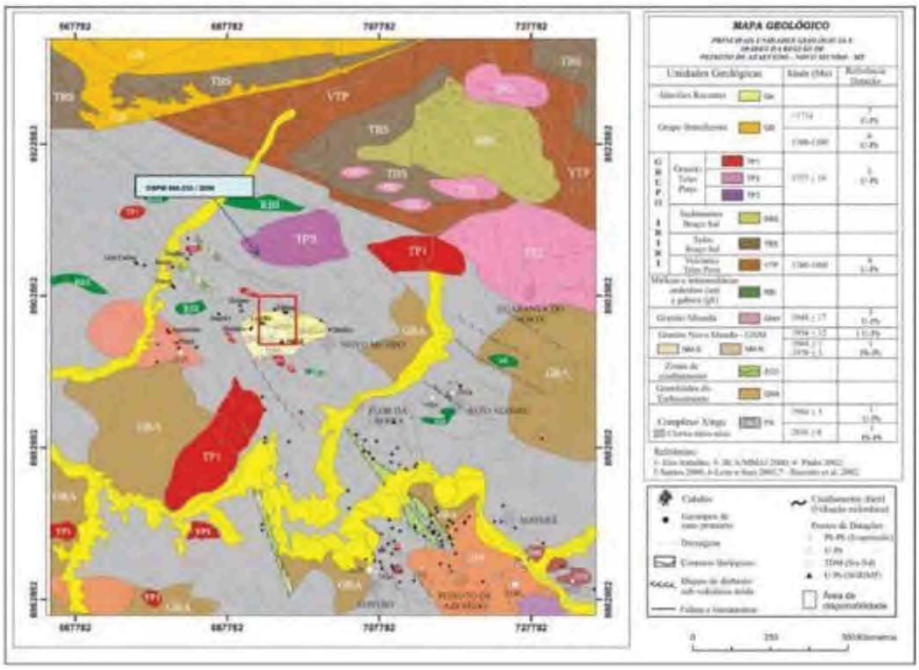

Figure 6-4: Geological map of the Peixoto de Azevedo / Novo Mundo region (seg. Paes de Barros, (2007)).

Three different magmatic arc calc-alkaline granitic bodies were characterised in the greater Novo Mundo region: a peraluminous monzogranite (2003 ± 4.3 Ma), a calc-alkaline monzogranite (~1994 Ma), and the Novo Mundo granite(s) (1987 ± 7.4 Ma to 1964 ± 1 Ma). These three arcs can be correlated to the Cuiú-Cuiú magmatic arc, described in the Tapajós Mineral Province, with possible subduction from the south to the north. The Novo Mundo granites show highly modified and deformed features (Testa, 2018). The perceptible deformation in this pluton is apparently homogeneous, of a ductile-ruptile character with zones of greater concentration of deformation restricted and noticeable mainly on its northern edge. In its surroundings, granodioritic to tonalitic gneisses predominate and are part of the Xingu Complex.

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Locally, it is noted that the pluton protolith is affected by a sub-horizontal fracturing system. The fracture zones intersect in an anastomosed pattern, denoted by the development of micaceous minerals (sericite and chlorite). Superimposed on this system is, a second fracture network with the persistent and preferential directions: N40E / 35NW, N20E / 80NW, N70E / 80SE, N20W / SV, N70W / 40SW and N80W / 65NE.

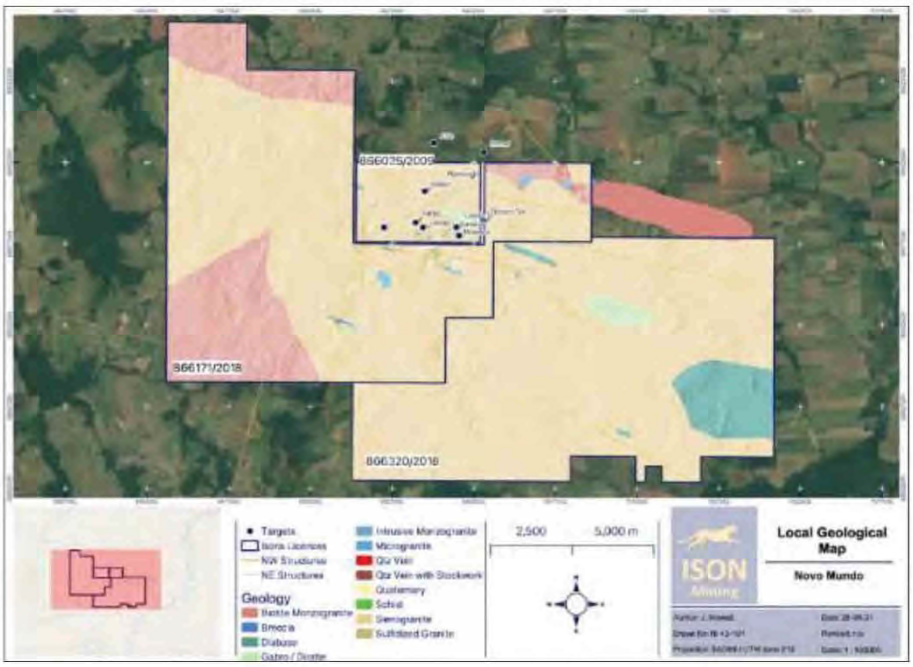

Figure 6-5: Geologic map covering the whole tenements with location of the main known targets in the central part (compiled form Nexa Resources mapping data)

Based on drill core descriptions, mafic rocks in the form of multiple thick gabbro and diorite dykes can be noted in the northern portion of the Novo Mundo granite. Also in this context, rocks with compositional banding are observed, but without metamorphic recrystallization or even crystal orientation. This banding can be characterized by the alternation of syenogranitic-composition leucocratic bands with mesocratic granodioritic bands (GMS, 2015).

The hydrothermal alteration zoning shows a central illite/sericite/quartz zone within in a larger one more propylitic alteration. The propylitic zone shows some major silicifications and K-feldspar-biotite-sulphide occurrences. In the central part there is a pervasive process of brittle deformation of the syenogranite with strong hydrothermal alteration by chloritization, sericitization, silicification, sulfidation and carbonation (NEXA data base and GMS, 2015).

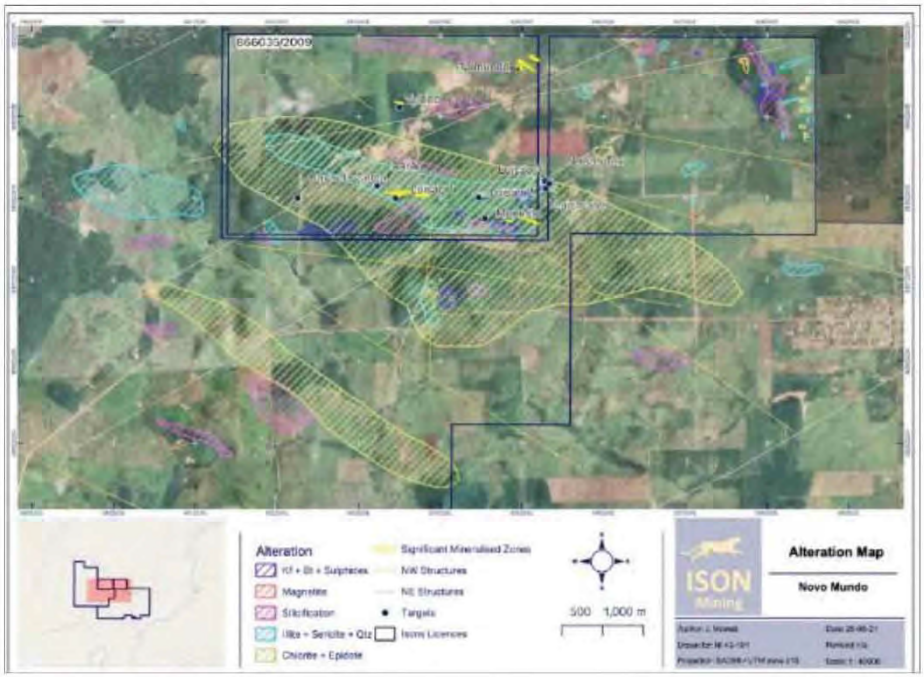

Figure 6-6: Hydrothermal alteration map and main targets

6.3. Mineralization Type

Two distinctly different styles of mineralization have been encountered in the area: a disseminated style and a vein style with examples shown in Figure 6-7. There are about a dozen primary occurrences that have been targeted by informal miners since 1990. These surface workings are distributed along the E-W Luisão trend for approximately 3 km and the 2km NW-SE Raimunda Trend. The main mining activities and exploration works were concentrated at the targets known as Luisão/Cláudio, Raimunda, Modesto, Edmar, Valdeci, Júlio, Luís Fante and Nelson Tex as shown in the map in Figure 6-8.

Figure 6-7: Pictures from the drill holes at Luisão and Raimunda areas showing the different types of mineralization

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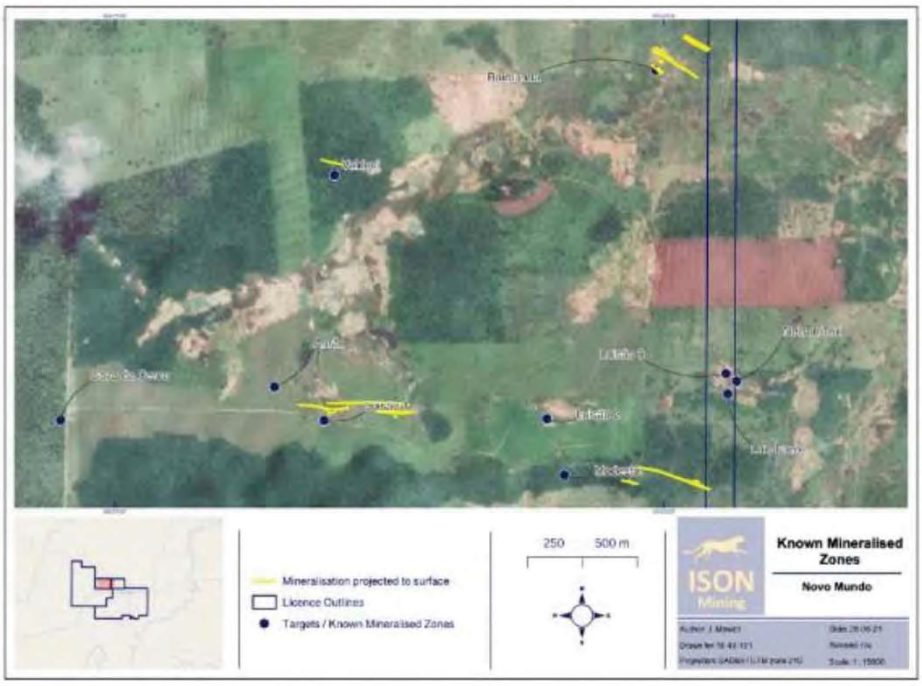

Figure 6-8: Location of the main primary gold occurrences

Figure 6-9: Photographs of Garimpeiros (informal miners) excavations in the ANM 866.035/2009 process

Observations based on field mapping and the drilling shows that the primary gold mineralization can be characterized by two main typologies:

- as disseminated in intensely hydrothermalized granitic rocks with strong phyllic alteration and pyrite enriched, with restricted or totally absent quartz; or

Figure 6-10: Photographs of a typical granite hydrothermalized and mineralized with disseminated pyrite (Luisão 01 pit)

- in structurally controlled NW-SE trending narrow quartz veins with abundant associated sulphide, composed of pyrite associated with chalcopyrite and some galena, pyrrhotite and sphalerite showing an epithermal context.

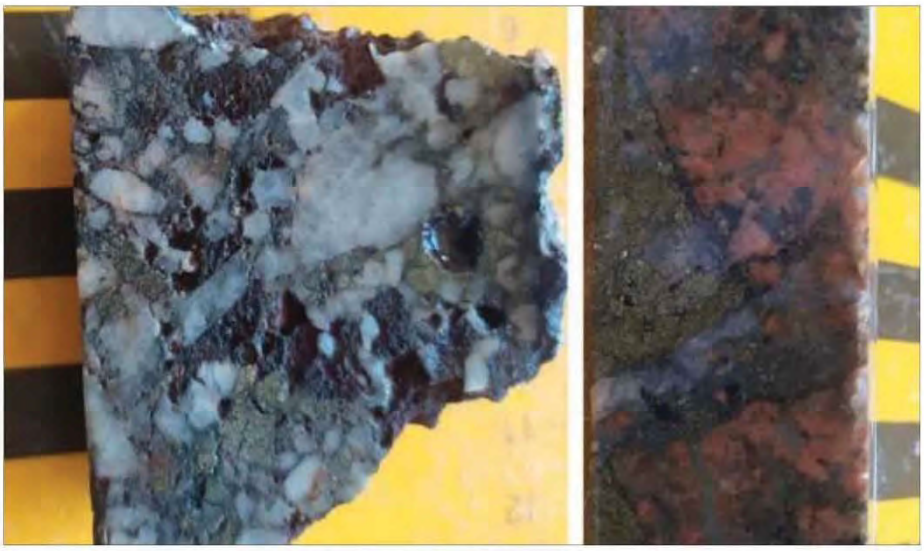

Figure 6-11:Photograph from (left) a mineralized high grade quartz vein (drill hole DN-FD-02 19,50 m) with well crystallized quartz and oxidized sulphides, and (right) DN-FD_02 77,40m) sulphide quartz vein associated to a stockwork

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7. DEPOSIT TYPES

A porphyry-epithermal magmatic-hydrothermal system is interpreted to be responsible for the gold deposits of Novo Mundo from field observations and the work by Moura et al. (2006), Paes de Barros (2007); Assis (2017), Trevisan (2015) based on the following evidence:

- a close spatial relation of the gold deposits with granitic intrusions;
- presence of hydrothermal alteration halos (mainly phyllic, potassic and propylitic);
- the dual mineralization styles of narrow veins and disseminated gold in a sericite (chlorite)-quartz -pyrite alteration zone); and
- the nature of fluid inclusions (magmatic and meteoric sources).

Additionally, the recent discoveries of disseminated Cu-Au-(Mo) porphyry deposits close to structurally controlled epithermal gold deposits (União Mine, Juruena), reinforce the magmatic-hydrothermal origin and suggest a porphyry-epithermal type association as the main geological-metallogenetic processes in the AFGP.

Fluid inclusion assemblages reveal the common presence of: (1) two-phase aqueous inclusions with variable salinity (2.1 to 26.1 wt.% eq. NaCl) and homogenization temperatures (126.5°C to 268.4°C); (2) H_2O to CO_2 inclusions of low salinity (6.1 to 8.9 wt.% eq. NaCl) and higher temperatures (251.6°C to 334.6°C); and more subordinately (3) high salinity (33.6 to 37 wt% NaCl eq.) aqueous fluids represented by halite-bearing fluid inclusions. This data suggests a combination of heterogeneous entrapment by immiscibility and fluid mixing during the evolution of the hydrothermal systems. Additionally, these results indicate P-T conditions of 0.9 to 3.4 kbar (3.3 to 12.6 km) and 110°C to 365°C (Janasi *et al.*, 2007).

Like the X1 deposit, data from Novo Mundo where the mode of occurrence of the types of fluid inclusions in individual assemblages, and the correlations between total homogenization temperature (Th VL) and salinity suggest interaction between a magmatic fluid of high salinity and temperature with an external fluid of low salinity. However, there is evidence for a cooler, possibly meteoric, component in the Novo Mundo's Luisão deposit, suggests a higher crustal level of formation. However, in both cases, the mixture of magmatic fluids with external fluids caused the progressive dilution and lowering of the system temperature, as well as an increase in oxygen fugacity (fO2), which may have caused the gold precipitation (Galé *et al.*, 2018).

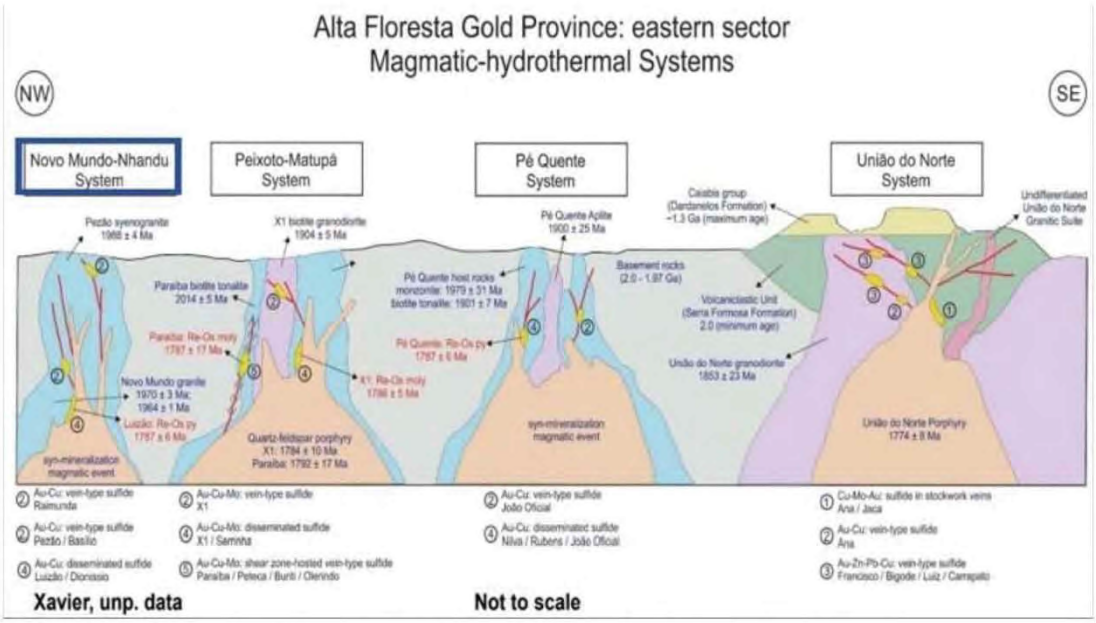

Figure 7-1: General schema of Magmatic- hydrothermal System for the AFGP eastern sector (Xavier, unpub ,2018)

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8. EXPLORATION

In 2021, Resouro planned first a pre-working plan for the Novo Mundo Project with the aim to advance with the understanding of geology of the major mineralized zones, trying to re-define the alteration related to the zone, and generate surface samples within the zone to support a first preliminary shallow drilling program.

Works included:

- historical data integration for new target definition;
- regional geological reconnaissance over the Novo Mundo Project's tenements and known mineralized trends;
- lito-estructural geological mapping of the major mineralized trend Dionízio-Luisão;
- a total of 3,320m of re-logging of the historical drill core with the aim to redefine the rock codes and to describe the hydrothermal alteration related to the zones; and
- a rock (grab) chip sampling over the main Dionízio-Luisão and surroundings with the aim to identify other parallel trends and check main trend continuity, where 309 samples were collected.

The Dionísio-Luisão mineralized zone comprises three major historical open pits aligned E-W along 2.2 km:

- the Modesto pit is about 300 m long and lies at the east portion of the area;
- the Luisão pit is the central pit and is also about 300 m long; and
- the Dionísio pit is about 200 m long and is located at the west portion of the trend.

All three pits were the focus of artisanal mining of high-grade oxide. The grab-chip sampling could indicate a more possible continuous mineralized trend and also showing a potential second EW parallel trend more to south (Figure 9-1) with several high-grade results.

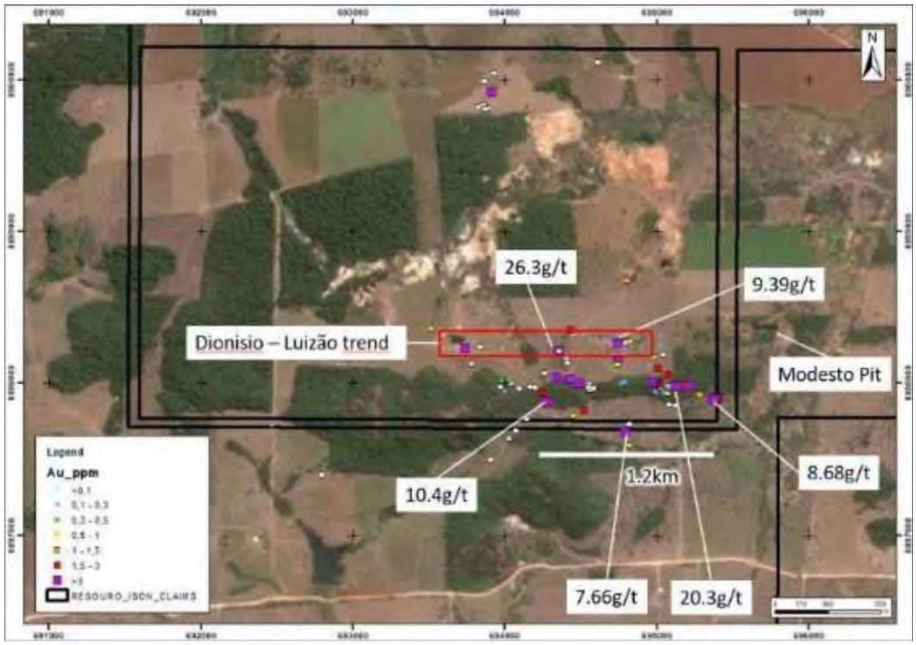

Figure 9-1: Map showing the new (grab) chip rock sampling results dor the Dionisio – Luisão trend.

- Three trenches with a total of 150malong the main Dionízio-Luisão trend were open, mapped and collected a total of 183 channel samples.
- First Diamond Drilling campaign.
- Bulk sampling of stockpiled material and a metallurgical study.

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8.1. Resouro Drilling

In 2022, Resouro executed its drilling campaign with the main objectives to confirm historical drilling, test extensions along the strike and understand better the structural control defined by the detailed mapping, and to generate exploration vectors for the next exploration program, all along the Dionisio – Luisão trend.

The preliminary drilling program was concluded by 10 drill holes and a total of 1262.8m (Table 8-1). All the drill core was logged and sampled with appropriate QAQC control.

TARGET	HOLE_ID	X	Y	Z	TRUE AZIMUTH (°)	DIP	FINAL DEPTH (m)
Luizão	NMDD001	693983.860	8898214.930	308.390	10	-60.1	129.82
Dionizio	NMDD002	693693.599	8898230.885	310.117	5	-60.8	117.56
Dionizio	NMDD003	693834.086	8898225.072	311.398	5	-61.6	115.02
Aluízio	NMDD004	693956.767	8898201.008	309.152	5	-65.2	149.03
Dionizio	NMDD005	693762.404	8898235.859	311.034	5	-60.4	98.20
Aluízio	NMDD006	694773.710	8898324.516	316.981	185	-59	105.58
Luizão	NMDD007	694710.491	8898324.041	318.183	185	-49.2	125.69
Dionizio	NMDD008	693728.262	8898180.026	313.641	0	-54.6	189.64
Dionizio	NMDD009	693560.665	8898326.617	305.785	185	-50	95.49
Dionísio	NMDD010	693884.812	8898225.427	310.196	5	-50	142.69

Table 8.1: Diamond Drilling Campaign of 2022

Figure 10-2: Map of main mineralized trend showing trenching and drill hole location of exploration work.

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The best results of the drill campaign were the interception of a high grade shoot at Dionisio pit by the drillhole NMDD002 with 11.65 m @ 5.11 g/t from 65.89m, confirming down-dip extension and the confirmation of a continuity of the mineralized zone with high grade zones by drill hole NMDD010 located between Dionisio and Luisão pits, with 16,21m @ 2.97m g/t from 55.9m, including 2.29 m grading 11.4 g/t gold and 1.08 m grading 19.93 g/t gold (Figure 10-2).

Additionally, the drill hole NMDD_001 located east of Dionisio pit intercepted a significant width of alteration and silver mineralization with low sulphide content (> 5%) that assayed 6 m @ 74.9 g/t Ag from 15m, including 2 m @ 215.4 g/t Ag from 17m. This silver-rich alteration represents some possible metal zonation along the main trend.

The drilling results of the Resouro campaign together with the grab chip sampling were effective to define at least three high-grade shoots with more subvertical dip along the strike of the major E-W parallel structures at the Dionísio-Luisão target.

The mineralization also confirmed association with strong sericite (chlorite) - pyrite - quartz alteration overprinting the monzogranite.

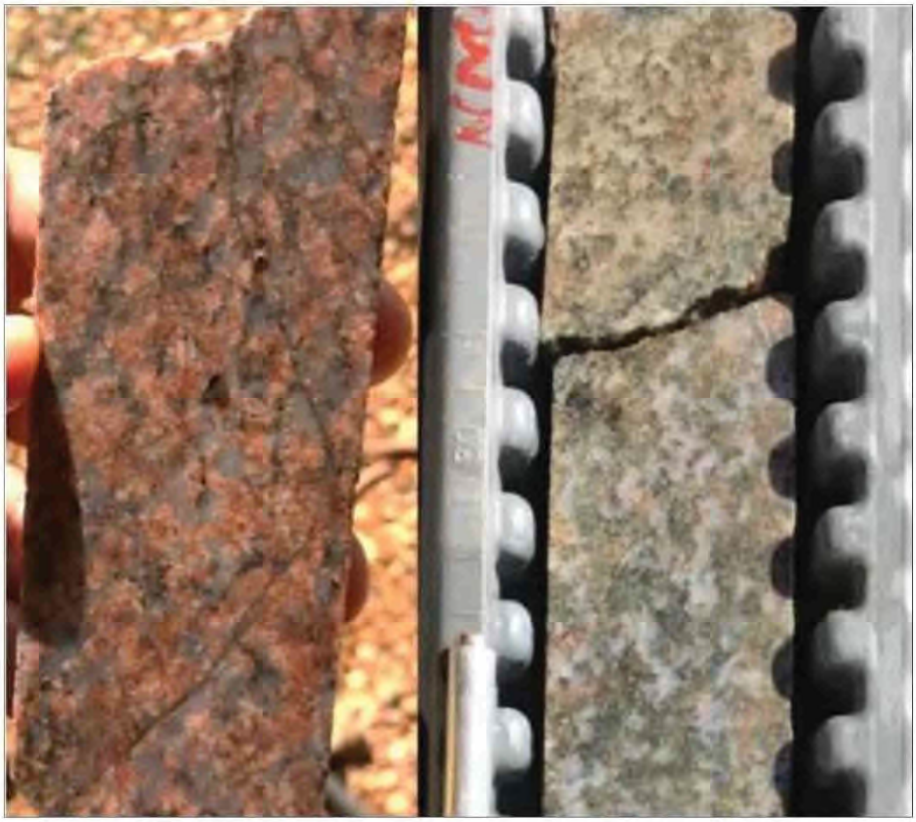

Figure 10-3: Hole NMDD-002 (left) host rock of monzogranite with some potassification and fine veinlets of chlorite and quartz; (right) main zone with strong sericite (chlorite) and intense sulphide dissemination.

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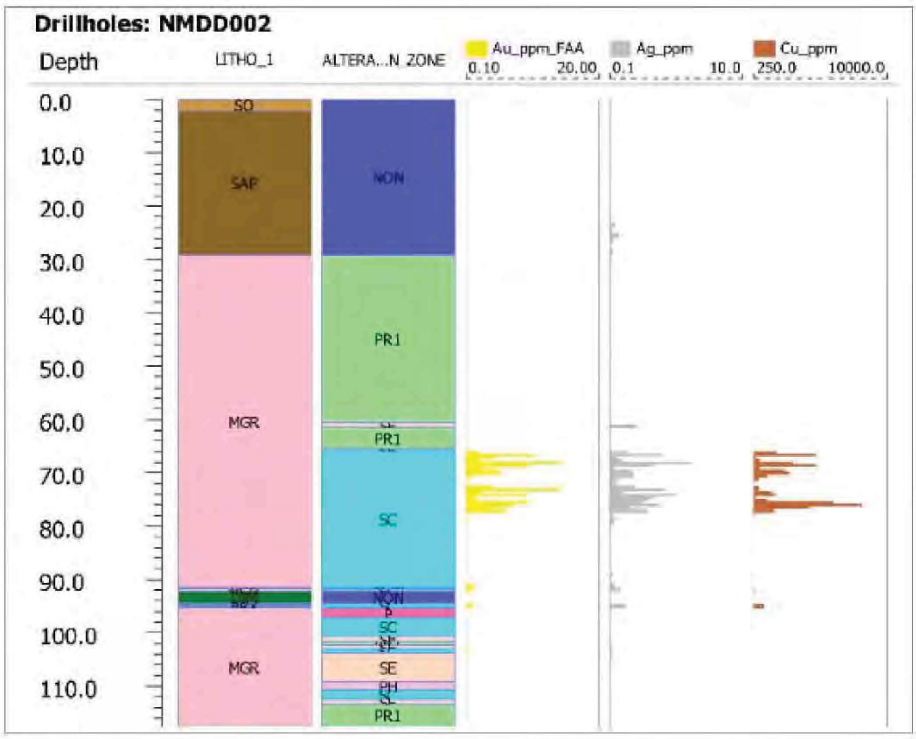

Figure 10-4 The main zone show strong correlation with low grade Cu anomaly between 0.1% to 0.5%

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9. SAMPLE COLLECTION

After the drilling was completed, the core boxes from Resouro campaign were stored at the Resouro office in Guaranta do Norte, MT. The Author was able to visit and review the core on the site visit (Figure 10-5 below). Resouro is providing a definitive core shed for all the core boxes, the historic and new ones.

The Author confirms an industry-standard for the quality control and procedures applicated for logging, sampling, QaQc control, sample and core handling by Resouro for the 2022 drilling campaign.

The historical data available indicate the sample preparation, analysis and security were done to industry standards best practices, however the Author has not been able to validate this.

Figure 10-5 Temporary storing of the core boxes at the field office of Resouro near Guarantã, Mt.